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A   SOCIAL SCIENCES

CULTURAL AND LINGUISTIC DIVERSITY IN MEDIEVAL BRITAIN SOCIETY

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Abstract: While intercultural communication is considered within a certain time-space continuum, the common and specific aspects of each culture are more clearly felt and the role played by linguistic diversity in the formation of multiculturalism is more clearly visible. In the formation of British multiculturalism in the Middle Ages, the connection and influence of language and culture attracts attention. In particular, the diversity of opinion on the relationship between multiculturalism and language in medieval Britain highlights the need to come to a common view on this issue. Traditional methods and methods of theoretical linguistics, especially description, observation, comparison, contrasting, confrontational methods were used in the research paper. Especially from this point of view, it is of particular importance to study the role of linguistic diversity in the formation of British multiculturalism in the Middle Ages.

Keywords: Multiculturalism, Linguistic diversity, Borrowings, Semantics.

1 Introduction

If we have a look at the medieval lexical development of the British variant of the English language and examine the root of inter-linguistic relations, we will witness this history being very ancient. It has already been established by a number of linguists that language is constantly formed and developed as a result of interaction with other world languages. Any event that occurs in social life affects the language and leaves its mark in all its areas.

While talking about language diversity in the Middle Ages, some authors take into consideration only the important role played by the French language in the life of Britain after the Norman attack on Britain, and the historical time when English, the native language of Britain, was officially accepted and all official documents were written in this language starting from the 14th century. However, between this period, the complex and difficult situation of linguistic diversity in medieval Britain is not taken into consideration. It is wrong to approach linguistic diversity only in terms of class and politics and deny its role in the formation of multiculturalism.

Taking into consideration this point of view, it should be noted that British multiculturalism is not only indigenous, but it is also shaped and changed under the influence of non-linguistic units. To follow the dynamics of the lexical development of multiculturalism in English, to revive its lexical landscape in this language, it is considered important to look which lexical units have been transferred and processed to this language historically. Moreover, we should pay special attention to official government documents and, at the same time, to the literary examples. The historical events that happened in the cultural life of any nation are reflected in the language, in other words, in the examples of literature and official state documents. Namely their investigation and involvement in research helps to find answers to a number of questions. Therefore, the fact that in the Middle Ages, the writing of literary examples in Britain sometimes in English and French, and sometimes in English and Latin, and at the same time, the fact that Britain was under the rule of Germanic tribes and the French for a long time, raises the question of whether representatives of society speaking two different languages or society in which language have been influenced by the another language for a long time perceive the world through their own language or through the other language they are influenced by?

Although it is somewhat difficult to answer this question, Gustave Le Bon partially answered it as follows: "Peoples change the elements of their civilization, adopt a new religion, language, institutions... when you study all these external changes closely, you instantly see that the ideas behind these words live and change very slowly... even when the language is strengthened because of writing, if it passes from one people to another, it definitely changes" [14, p.86].

Therefore, the word obeys the rules of the language it enters and the changes in its semantics are closely related to the worldview and thinking of the people. "In other words, spontaneous changes in the language also give rise to the conscious influence of society to a certain extent" [15, p.346].

The recent increase in interest in the Middle Ages attracts special attention during the conducted research. This is mainly due to the fact that there are certain obscure aspects about the multicultural British society of the Middle Ages, which today raise a number of questions. These questions are directly related to the insufficient examination of the linguistic diversity that occurred in English within the geographical boundaries of Britain during the Middle Ages. Thus, in the Middle Ages, British state documents were either written in their native English or in French within a certain period of time. Although at first glance this may seem like a very simple matter, in fact, one cannot ignore the extent to which the interlanguage communication took place in a complex historical time frame. Sometimes linguistic diversity is treated only from a political or social perspective. However, we must not forget that the diversity of languages determines the way of thinking, the way of life of the medieval man and his cultural influences. At a certain historical time, the dominant language becomes the language of the state documents. At the same time, we cannot mention only Latin, French, and German. In other words, medieval linguistic diversity was the main and primary factor shaping medieval multicultural British society.

2 Literature Review

In medieval Britain, things were very complicated, both politically and linguistically. Mark Taylor notes that a medieval British poet could appropriate Gascon literature or, conversely, claim French literature as his own. The reason for this was that Gascony was a province of England or because French was the language of the English court and nobility. At the same time, he might consider both languages as foreign languages [17, p.11]. In other words, the role of extralinguistic factors in the formation of the British variant of the English language and multiculturalism in the Middle Ages for one reason or another is greater. Every language that had an aristocratic status in medieval Britain left a huge mark on English literature, culture, and the British variant of English. A number of linguists call the situation "Triglossia" that existed during the Middle Ages, because Britain was mainly under the influence of three languages and three cultures. Therefore, along with Anglo-Norman, the language of court, culture, and administration, Latin still maintained its importance in church and official writings. As we mentioned, a number of questions arise at this point. Although Britain was influenced by several cultures and languages in the Middle Ages, the influence of the French language is discussed in particular.

William Rothwell noted that in order to investigate the enrichment of British English in the Middle Ages by French terminology, the interaction of these three languages, which led to the emergence of a trilingual civilization in England in the Middle Ages, should be studied in more depth and detail [16, p.165].

While talking about the medieval history of Britain, it is mainly about the Germanic tribes and the French invasion. But it is already known that in the Middle Ages, Britain was not only under the influence of the French and Germanic tribes. During our research, we come to the conclusion that there was a mass migration of Jews to Britain along with the French invasion in the Middle Ages. A number of medieval authors (M. Ormrod, M. N. Taylor) mention such information in their speeches. The main reason for the migration of Jews was related to the economy. So, after the war in the Middle Ages, the financial situation of both the local population of Britain and the French was not so good. After the Jews came to Britain, they opened

banks and gave money to the ruling circles. Not enough facts can be found about how the Jews, who settled in Britain for two centuries and played a significant role in the British economic and political life, influenced the British variant of the English language in the Middle Ages and the cultural life of the people. However, living side by side for two centuries in a certain geographical area cannot but leave its traces in the language and cultural life.

At the same time, many Christian and Muslim African priests immigrated to Britain due to stagnation in Europe during the Middle Ages. Dr. Katlin Green tried to uncover a number of facts about the migration of Africans to Britain in the Middle Ages and was able to obtain some evidence. Mark Ormrod's research is especially noteworthy while talking about research on medieval British culture and linguistic diversity. He notes that Britain became a multicultural center in the Middle Ages. As the main reason for this, he mentioned the flow of immigrants. Ormrod emphasizes that the flow of immigrants to Britain in 1330-1550 played an important role in the formation of economic, cultural, and political life in the Middle Ages [15, p.12].
In our opinion, taking into account all that has been said, it should be noted that this topic has not been sufficiently studied till now.

3 Materials and Method

In order to study the role played by the medieval multicultural society in the formation of language diversity, it is necessary to answer a number of obscure questions by referring to a number of literary examples. Therefore, the correct study of literary examples, the involvement of lexical units in the semantic analysis brings clarity to the issue of the formation of linguistic diversity under the influence of which languages and cultural values changed.
At this time, we use the traditional methods and methods of theoretical linguistics, especially the methods of description, observation, comparison, contrasting, confrontation, for obtaining more accurate results.

4 Results and Discussion

Since its inception, mankind has always been in close contact with various nations and states for one reason or another. Against the background of these relations, cultures were formed, developed, and enriched. In the same way, lexical units expressing new cultural values led to the development of world languages. In other words, a number of new lexical units have entered various languages under the influence of various reasons.

In order to see the interaction between language and culture more clearly, let us pay attention to the 19000-line work "Ormulum", written by a priest named Orme, who lived in northern Lincolnshire in the 12th century. The multicultural way of life has left huge traces in the pronunciation of words, that cannot be denied. During the Middle Ages, people living in Britain did not pronounce a number of sounds. This situation worried Orme. For this reason, as in modern English, Orme pronounced double consonant sounds before vowels to indicate short vowels (as in modern English words diner - dinner "lunch"; later - latter "later", etc.) [8, p.53].

Here are some samples as relevant to our research work:
Transcription: piss hoc iss nemmned Orrmulum forrpi patt
Orrm itt wrohhte ... Icc hafe wennd inntill ennglissh.
goddspelles hall3he lare. Affterr patt little witt patt me.
min Drihhtin hafepp lenedd ... annd wha-se wilenn shall piss
hoc. efft operr sipe writenn. himm bidde icc pat he't write rihht.
swa-summ piss hoc himm t<echepp. all pwerrt-u t affterr pa tt itt
iss. uppo piss firrste bisne. wipp all swillc rime ails her iss sett.
wipp all pe fele wordess. annd tatt he Joke wei patt he.
an bocstaff write wi33ess. e33wh.er p<er itt uppo piss hoc
iss writenn o patt wise. Joke he well patt he't wrote swa.
forr he ne ma nohht elless..

Translation: *this book is called Ormulum because Orm it wrought (made)...*
I have turned into English (the) gospel's holy lore,
after that little wit that me my Lord has lent (=granted).
And whoever intend shall this book again another time write,
him ask I that he it copy right, in the same way (that)
this book him teaches, entirely after (the way)
that it is, according to this first example,
with all such rhyme as here is set (down),
with all the many words. And (/ ask) that he look well
that he a letter writes twice.
Everywhere it in this book is written in that way. [2, p.87].

These samples show that the British variant of English was influenced by several languages and cultures during the Middle Ages. Each new lexical unit expressing the concept of multiculturalism has its own place in the lexical composition of the British version of the English language. The lexical units that do not follow the rules and laws of the English language could not be consolidated in the language system, and either became archaism or were excluded from the language system. Sometimes, on the contrary, it completely replaced the existing words in the language, or combined with them and led to the creation of new words. An example of this is a number of French words. They have almost completely replaced some old English words (*firen* is replaced by *crime*, *stow* by *place*, *leod* by *people*, etc.). In some cases, the lexical units expressing multiculturalism were combined with the lexical units of the old English language and entered the language system in the form of new concepts. For example, the lexical unit of French origin *gentle* is combined with the old English word *man* (a word of German origin) and became *gentleman*. In some cases, the multicultural lexical unit and old English lexical unit could maintain its existence in the language system: for example, old Eng. *doom* and French *judgment*, old Eng. *house* and French *mansion*.

As can be seen from the examples given, in the Middle Ages, Britain was under the influence of several cultures and languages. However, among these languages, the French language has always had a superior position. The question arises:How did the French differ from the Anglo-Saxons, Scandinavians, and other ethnic groups that immigrated to Britain? The answer to this question shows the direction in which the multicultural lifestyle of medieval Britain changed after the French occupation. The ethnic groups that settled in Britain, and especially the Anglo-Saxons, saw the French as an energetic, rough people, but also as a people living a beautiful, luxurious life in nice-looking mansions. The main reason for this was that in the Middle Ages, the French were economically and politically stronger than the Anglo-Saxons when they attacked Britain. Namely for this reason, after the British occupation, the ruling ranks belonged to the French. This, in turn, helped them to continue the luxurious life typical of the French. In contrast to the French, the Anglo-Saxons were simple, agricultural, riverside commoners [18].

The luxurious lifestyle of the French was soon reflected in the cultural life of Britain. In the Middle Ages, France was a center of art and architecture. This directly affected the rapid development of architecture and art in Britain after the French occupation. Under the influence of the French, in the 11th-12th centuries, mainly in Britain, significant changes began in the field of construction: large, big and, at the same time, magnificent palaces and mansions were built. For the first time, the French gave the foundation for the creation and development of "Gothic" style architecture. In the field of architecture, one can see the influence of French culture on British culture through the words like *arch, tower, pillar, porch, column*, etc.

At the same time, the French who immigrated to Britain in the 11th-13th centuries brought with them certain changes in the art sphere. The main reason for this was that the emigrating French were mainly people related to the art sphere. French art brought Greek, Byzantine, and Arabic art to Britain. As an example, we can list the following examples of art:

- London Castle, which dates back to the 11th century and is a unique example of Norman architecture;
- A Bronze Lion Statue dating back to around 1100 and representig an example of Norman metalwork;
- The Bayeux Tapestry, an example of a construction built by the Normans, dating back to the 11th century;
- Trivulzio candlestick, which is considered to be from the 13th century and is an example of Norman art in Italy;
- The Christ Pantokrator mosaic in Palermo from the 12th century is one of the most magnificent examples of Norman mosaic [13].

This effect is also reflected in the language. So, the words like *beauty, color, image, design, figure, ornament*, etc. are added to the English language.

The emergence of Anglo-Norman society further strengthened the position of French culture and language. Thus, starting from the 13th century, the French language began to take a dominant position. Later, the French language began to replace the Latin language. While the local population mostly spoke their native language - English, the upper class spoke French. French had become the language of culture and law. Namely because of extralinguistic factors (economic, social, political, and cultural relations) the culture in Britain in the 11th-13th centuries became richer and this was reflected in the language.

However, while studying the formation of linguistic diversity in the British version of the English language, it would not be appropriate to pay special attention to the study of the French language alone. In our opinion, the influence of Scandinavian culture and language should be investigated. Very little research has been done on the influence of the Scandinavian language. The main reason for this is that the cultural differences between the Anglo-Saxons and the Scandinavians, who settled in Britain in the Middle Ages and called themselves English, were not so important. It is even noted that the Anglo-Saxons have higher cultural values than the Scandinavians. However, analyzing the lexical units of Scandinavian origin included in the British variant of the English language, we witness the influence of the Scandinavian language on all levels of the English language.

The changes that took place in the cultural life of Britain as a result of the attacks of the Danish kingdom starting from the 9th century were also reflected in the language. Thus, the ethnic composition and social structure of the northeastern part of Britain, from London to Northumbria, completely changed as a result of the attack of the Scandinavian tribes - Vikings - on Britain starting from the 9th century. A number of Norwegians and Danes settled here and brought their culture and language with them. Even after the Anglo-Saxon kingdom regained its power here in the 11th century, its distinctive Scandinavian character was preserved and it was called Danelaw (Denmark's legal area). Currently, Scandinavian vocabulary is used in this area and a number of geographical names are of Scandinavian origin [4, p.45].

In the later years of the Anglo-Saxon monarchy, Scandinavian influence in England became even more noticable; Norwegian and Danish aristocrats occupied the highest positions in England, and as a result, Scandinavian lifestyle and culture entered the daily life of the kingdom. In turn, this gives reason to talk about the Anglo-Danish society that existed in England during this period. This society reflects both cultures. This period in British history is characterized as a time when the English were under the influence of Scandinavian tribes, their languages and cultures. As a result of the influence of the Scandinavian language, the lexicon and grammar of the English language have undergone changes. As it is known, English has been a synthetic language, the influence of the Scandinavian language has resulted in the dropping of endings in English words and the formation of the characteristic analytical structure of the English language.

The analyticity of a language means that the relationship of words in a sentence is created directly by expecting a specific sequence of word structure. By synthetic language, it is understood that the connection of words in a sentence is created by directly changing the words themselves.

At the same time, the Old English words *dag, gerd, gear*, etc., were influenced by the Scandinavian language and, in a number of words, the grapheme "g" was replaced by the grapheme "y" (*dag - day, gerd - yard, gear - year*). Apparently, the changes that took place in such a multicultural background were strengthened by taking root in the English language system.

In general, the influence of the Scandinavian language on the English language can actually be divided into two periods. The main reason for this is that the Normans are of Scandinavian origin. Thus, in the 9th-10th centuries, some of the Scandinavians attacked Britain, and some attacked France, and managed to capture a large part of France. After a certain time, when the Normans became stronger economically and politically, they cut off their connection with the Scandinavians and adopted the French culture, which was considered a high culture, and began to call themselves French.

Therefore, living in the same geographical area for several centuries has led to the fusion of both peoples. As we mentioned above, during such close relations, a number of lexical units entered the language. Sometimes, a lexical unit entering a language removes a lexical unit already existing in the language from the lexical composition of the language, and in some cases both can maintain their presence in the language: for example, Eng. *whole* (old Eng. hool) and Scand *hale* (old Skand. hail). Both lexical units are used together in the medieval phrase "hail and hool" (completely full). Let us pay attention to another example: *no - nay*. In modern times, *nay* is used only to emphasize the idea *"it's enough, nay to much"* (more than enough). But it was used to answer "no" to questions in Middle Ages. It is true that the word nay was not as strong as *no* ("*Is it true? Nay.*" – "*Is it not true? No.*"). While the middle English word *leas* survives in modern English in the form of the lexical suffix *-less*, the original Scand. word *loose* has completely replaced it [5, p.67].

Although the Scandinavians and the Anglo-Saxons sometimes had hostile relations, they had friendly relations at certain historical times. After the Scandinavians settled in the geographical area of Danelaw, friendly relations began to develop between them. The Anglo-Saxons knew the Scandinavians as a warlike, brave people. Even in some sources, there are several reports that King Alfred was closely interested in their traditions after his victory over the Scandinavians.

However, it should also be noted that this closeness was not considered meaningful. Some Anglo-Saxons criticized King Alfred. While he was welcomed by the local people because of his respect for religion in the early days, he was later criticized by his own people because of his friendly relationship with the Scandinavians. They urged King Alfred not to establish close friendship with the pagan Scandinavians, to stick to Anglo-Saxon traditions [5, p.61-62].

It is the fact that the Scandinavians and the Anglo-Saxons lived in the same geographical area for a long period of time, which caused the Scandinavian language to play an important role in the formation of the English language. We can see this more clearly when we analyze the lexical units of Scandinavian origin that passed into English. At the same time, the analysis of such lexical units gives us extensive information about the relations and cultural trends between peoples and states within a certain historical time frame. For example, the word *Heithen* entered the language during the invasion of Britain by Norse tribes, reflecting Norse beliefs. It means "pagan". The Scandinavians, as it is known, believed in polytheism. In some literature, this word can be found as *heathen*. When we look at some medieval writings during our research, we see that the Anglo-Saxons refer to the Scandinavians as *Heithen*.

This sample is suitable to our research, which is evident in the citation given below: "he loved foreign vices too much and gave heathen customs a firm footing in this country, alluring mischievous foreigners to come to this land" [12, p.61-62]

Namely through such analyzes, one can find answers to a number of questions about the historical circumstances in which

multicultural societies were formed and under the influence of which languages linguistic diversity took place.

The influence of the Scandinavians was also reflected in the formation of a number of geographical names. Such geographical names were formed as a result of adding Scandinavian language suffixes to words, for example, *-by* (Scand. *byr* - settlement), *-beck* (Scand. *bekkr* - stream), *-thjorp* (Scand. *thorp* - village), *-fell* (Scand. *fjall* – mountain), *-toft* (Scand. *topt* – property) *-thwatte* (property) etc. Such geographical names include *Brenceby, Howthorp, Dolby, Lowestoft, Easthorp, Wadhurst, Newnham, Norwich, Berwick, Heslington, Maplestead*, and others [3, p.31-32].

As a result of the interaction of Scandinavian and Anglo-Saxon cultures, the following Scandinavian word groups have passed into English:

- Words in daily use: *cliff, dirt, sky*;
- Agricultural area: *land, dale, egg, root*;
- Words describing the names of seasons: *winter, summer*;
- Words related to the law: *law, out law, by law*;
- Words related to economy: *score, loan, thrift, coin, fellow* (in the early times, the word fe-lagi was used in the meaning of the person who divides the property or makes the initial payment, or in the meaning of a partner);
- Religious words: *Tuesday – the day of Tura – the day of victory (Tuesday), Wednesday – the day of Odin (Wednesday), Thursday – the day of Thor (Thursday), Friday – the day of Odin's friend Frigg (Friday)*;
- Geographical names: *Couton, Grimston, Colton, Suinton, Stirsby*.

We would like to note that in the 9th century, unlike the English, the Scandinavians did not have a written culture, so there is very little evidence left to prove the assimilation of the two languages; perhaps, the influence of the Scandinavian language on the English language has not been studied systematically enough for this very reason. The Scandinavians used only the runic system. One of these is a stone carving in St. Gregory's Church, Kirkdale, North Yorkshire, dating to 1055 according to the solar calendar.

Below, we show the examples related to our researh:

Transcription: *orm gamalsuna bohte scs (= sanctus) gregorıvs mınster donne hıt wes lel tobrocan 7 to falan 7 he hıt let macan newan from grunde xpe (= chrıste) 7 scs gregorıvs ın eadward dagum cng (= cynıng) 7 ın tostı dagum eorl 7 haward me wrohte 7 brand prs (= preostas)*

Translation: *orm gamalson bought st gregory's mınster when ıt was all broken & fallen down & he caused ıt to be made anew from the ground to chrıst and st gregory ın kıng edward's days & ın earl tostı's days & hawarth & brand prıests made me* [2, p.31].

If to look at the examples given above, it becomes clear once again that in the Middle Ages the linguistic diversity played an exceptional role in the formation of British multiculturalism, and at the same time, the lexical composition of the British variant of the English language, which interacted with different languages in a contact or non-contact form, underwent variability. In other words, linguistic diversity has emerged in the British variant of the English language.

5 Conclusion

Since its inception, mankind has always been in close contact with various nations and states for one reason or another. Against the background of these relations, cultures were formed, developed, and enriched. In the same way, lexical units expressing new cultural values led to the development of world languages. In other words, language is constantly evolving. It should not be forgotten that the language cannot develop alone. Different cultures and languages always play an exceptional role in the development and enrichment of the lexical composition of the language. Precisely because of the rich multicultural center

of Britain during the Middle Ages, we see a rich, highly developed English language, also developing today. Namely for this reason, the study of the sources of enrichment of the language lexical composition is of particular importance.

In other words, each nation learns, understands, and assimilates the culture of other nations, which has been formed for centuries and has been preserved in the language, making some customs its own. Material and spiritual culture is embodied in language. The material side of multiculturality is the language, and the spiritual side is the cultural-historical heritage formed through language over the centuries. Language is both the protector of cultural values and the most important tool available for their assimilation. In other words, language plays the role of a window to the world, it can be likened to a "key" for learning and mastering other cultures. Society ensures its development through language.

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"MEDITATION" IN THE MUSICAL CREATIVITY OF THE EUROPEAN ACADEMIC TRADITION OF THE 19TH - 20TH CENTURIES

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Abstract: Meditativeness today is considered one of the characteristic features of spiritual searches and, at the same time, specifics of various types of creativity. This is the result of the actualization of its factors in the religious, psychological, philosophical and certainly artistic and other spheres of culture of the last century. The purpose of this research and the necessary prerequisite for the subsequent understanding of the peculiarities of the development of meditativeness as one of the principles of modern musical creativity is the initial generalization of data about those opuses in Western academic creativity and experimental planes of musical art of the 20th century, in the title of which the term "meditation" is present. The following conclusions emerge from this investigation: as a result of the generalization of data on "Meditation", which was carried out on the basis of the titles of works with the presence of the term "meditation" in them in Western academic creativity and experimental planes of musical art of the 20th century, it can be asserted that, in this area, genre-forming processes and certain stages dominated by certain stylistic devices are enough clearly visible. These tools are endowed, on the one hand, with the typological unity of aesthetic-stylistic and semantic concepts; on the other hand, they represent the originality of the author's approaches and spread their influence on the next milestones in the development of meditativeness, close to its acquisition of worldview or stylistic significance.

Keywords: Meditation, Meditativeness, Reflection, Concept, Notion, Worldview, Model.

1 Introduction

Finding balance and harmony with oneself and the surrounding world is a question that has worried mankind for a long time. It intensified in the last century, at the same time actualizing the search for sources of achieving such a state in various planes - religious, psychological, philosophical and, of course, artistic. These searches led to the use of different terms, based on different genres and stylistic systems. Today, this kind of path is often described as "meditation" - self-immersion or concentration, which, however, largely reflects the influence (broadly speaking) of Eastern cultures in the period of the 1960s and 1970s. At the same time, the essential feature of modern meditations, say, in the art of music, is the limitation of external expansiveness in favor of spiritual concentration, intense psychological self-understanding or sacred penetration through certain experiences into the essence of the phenomena of the inner or outer world. In this context, "the purpose of music is to sober and calm the mind, thus making it receptive to divine influences" [6].

However, as it turned out, the term "Meditation" was interpreted as "reflection" in the European academic tradition for a long time, which was determined by the interpretation of the Latin term, and such an "interpretative direction" not only prevailed in the 19th century, but was also largely inherent in the next, 20th century. The names of the works in the Cyrillic reprints and directly the stylistics of such opus testify to this.

2 Materials and Method

In order to explain the situation and create a systematized basis for the next stages of studying meditativeness in musical art as a component of general cultural processes, it is expedient to identify such compositions in world creativity with the maximum possible degree of thoroughness and to outline some of the most significant "milestones" in the formation of the modern corpus of musical meditativeness in various manifestations of its fundamental concepts. At the same time, it should be pointed out that, according to the applicability of the concept in analytical and theoretical apparatuses when studying the art of various composers, the disclosure of the meaning of "meditativeness" remains within the general cultural, philosophical, psychological, and religious boundaries [24, p. 19]. For example, being one of the central concepts of A. Kameneva's dissertation research (meditativeness in the structure

of M. Shukh's artistic consciousness "as a way of understanding the world in intonation dimensions" [10, p. 81]), it does not acquire a clear definition, and the scientist herself admits that "meditative music in general is a very ambiguous concept" [10, p. 42] and "the concept of meditativeness is a multifaceted and ambiguous concept" [10, p. 77]. There are few works in which the sources of meditativeness are named in the course of studying religious, in particular, Christian works [8, p.13]. At the stage of creating a statistical base of research, primarily reference publications, from which data on such works are gathered (Strickland, 1991; Chilvers and Glaves-Smith, 2009; Gagné, 2019) are extremely important, as well as the author's explanations of own compositional ideas and concepts (Messiaen, 1973; Oliveros, 1974).

3 Results and Discussion

In modern scientific works within Ukrainian musicology, the concept of meditativeness is used quite often, and an initial attempt to systematize its appearance in the scientific literature of the second half of 20th century has already been made. Such research was carried out by V. Antipova, applying it in the article "Influence of the Indonesian gamelan on the work of European and American composers of the 20th century" [3, p. 56]. The researcher points to the appearance of "the first publications about meditative compositions... in the American press as early as the 60s of the last century" and at the same time only casually notes that they "appeared in the press under the headings "trance music", "pulsating music", "procedural music", "phase music", "music with repeated structures", "music according to the model"" [3, p. 56]. Such a valuable remark, however, shows a high degree of experimentation in the assimilation and adaptation of Eastern experience in traditional sphere of influence of Western academic culture.

Bypassing the consideration of essentially meditative fragments, presented by a significant array of episodes or parts mainly in cyclical compositions, the list of works with only this name already in the 19th century was quite significant in the instrumental and vocal-instrumental spheres. Among them, in particular, there were the following:

For organ: "Meditations" by Volkmar Busch (1812-1893; 1854), "Meditation" by William Faulkes (1863-1933; 1894), "Meditation" by Isaac Van Vleck Flagler (Isaac Van Vleck Flagler; 1844-1909; 1895), "Meditation" by Frederick William Batchelder (1838-1911; 1896), "Romance and Meditation" Op.37 by Louis Adolphe Coerne (1870-1922; 1896), "Meditation" for the organ by Nathan Hale Allen (Nathan Hale Allen; 1848-1925; 1896);

For piano: "Meditation of a Young Girl" ("Méditation d'une jeune fille") Op.41 by Julius Egghard (1834-1867; 1859), "Meditation" by Charles Fradel (1832-1899; 1885); "Meditation" Op.31 Mel Bonis (1858-1937; 1898);

Instrumental ensemble: "Meditation" Op.59 by Marie-Auguste Durand (1830-1909; 1869); duet for solo instrument and piano "Meditation" by Giuseppe Arrigo (1838–1913; 1896);

For solo instruments and a certain orchestral composition: "Meditation" for two oboes, organ and string orchestra Op.68 by Charles Lefebvre (1843-1917; 1887), "Meditation" from "Thaïs"; arrangement for piano with orchestra by E.L. Jefe or Klieber) by Jules Massenet (1842-1912; 1894);

For symphony orchestra: "Meditation" by Jules Bordier (1846-1896; 1885).

In parentheses, there are composer's years of life (it contributes to the idea of chronological and stylistic preferences) and the date of writing the work (appeal to the genre in a certain period of life).

It is worth noting that, among such works, there are compositions whose titles contain information about the subject of "reflection", for example – "Meditation on the Adagio from the Lunar Sonata" ("Meditation über das Adagio aus der Mondschein-Sonate) Op.296 for violin and piano by Karl Böhm (1844-1920; 1883) or "Meditation on the theme of Bagatelle" ("Méditation d'après la téme Bagatelle") Op. 3 for violin and piano by Camille Saint-Saëns (Camille Saint-Saëns; 1835 – 1921; 1892).

Among the vocal and instrumental opuses, there are the song cycle "Religious Meditation (Mother of the Savior)" ("Méditation religieuse (Mater Salvatoris)") for voice and piano by Émile Pessard (1843-1917; 1875) and a cantata for the opening ceremony of the jubilee exhibition in Philadelphia on May 10, 1876 "The Centennial Meditation of Columbia" for choir and orchestra by Dudley Buck (1839-1909; 1876) to the text of the poet Sidney Lanier.

It is important to pay attention to certain nuances that will play a role in the development of the genre direction, or rather, the multi-vector field of meditations in the subsequent stages. An illustrative example is the following one. Unlike "The Centennial Meditation of Columbia" by D. Buck and "Religious Meditation (Mother of the Savior)" by E. Pessard, which largely depend on the standards of well-established genres (solemn cantata and song cycle) and in which meditativeness is present only in the form one of the main elements of the name, the composition of Berlioz represents the opposite trend and at the time of its creation it was impressive with an innovative approach to the implementation of the concepts of the very notion of "meditation". At the same time, they give a clear idea that, due to the presence of the keyword in the title, genre parameters actually show non-subordination to any typological criteria.

However, paying attention to the peculiarities of vocal-instrumental samples, it is possible to suggest that namely the textual bases make it possible to detect, at least, certain modifications in the sphere of contemporary "reflections" and a gradual, albeit not too pronounced, approach to the modern understanding of meditativeness in music art. In this connection, let us pay attention to the text of Louise Belloc based on Thomas Moore (1779-1852) to "Religious Meditation" ("Méditation religieuse"; possible translation – "Religious thoughts") op. 56 for six-part choir and small orchestra by Hector Berlioz (1831):

All this world is but a fleeting shadow;
nothing is real but heaven.
The glitter of the wings of glory is false and fleeting;
flowers of love, hope, beauty
flowers on the grave;
there is nothing brighter than the sky!

It contains concepts typical of Western religious traditions, such as the transience of the "visible" world and its charms, its ghostliness (in the form of the shadow concept), man as a traveler limited by the "tumultuous day" of his earthly journey with all its "false" achievements, and, most importantly, the duality of the "heavenly" and earthly worlds-dimensions. But what lies behind the metaphor "the torch of genius, mind", which at first glance appeals to the images of the Enlightenment and rationalism, is actually not so unambiguous. One way or another, but the idea of "enlightenment" is hidden in it as directed to the intelligent understanding of intuitive comprehension or cognition on the basis of the extinction (nirvana) of fleeting emotions and possessions in the pursuit of liberation or spiritual enlightenment, which combines the highest goals of both Christian and, for example, Buddhist spiritual practice. In the historical context, this factor cannot be ignored, since the British culture at that time (the first third of the 19th century) had already assimilated the influences and practices of the non-Middle East. In this understanding, the juxtaposition of "earth" and mystical "real", "brighter than all" and "calm" "heavens", although obvious and indisputable for romantic poetry, is already penetrated by ideas somewhat different from Puritan-British postulates, opening the way to an unusual and a

rich renewal of the usual world picture. Perhaps this hidden plan became the impetus that attracted the brilliant French composer.

Analyzing the circle of appeals to musical "meditations" in the first half of the 20th century, similar trends are revealed as in the previous period. For example, "meditations" for the organ written in the first decades of that century contain the principles of organ chorale preludes based on the variation principle. Among such works, there are Charles Wakefield Cadman's "Meditation" (1881-1946; 1904), "All Faithful" Christmas Meditation op.183 by William Faulkes (1863–1933; approx.. 1909), "Meditation on "Crimond Psalm 23" and "Veni Creator" (1900s) by J. Stuart Archer and "Serious Meditation" ("Méditation sérieuse") op. 243 by Homer Newton Bartlett (1845-1920; 1912). The same trend belongs to "Meditation on the Old Bohemian Chorale of St. Wenceslas" op. 35 for string quartet by Josef Suk (1874-1935; 1914; author's transcription for piano and string orchestra), in which, from a stylistic overview, the principles of hymnism, chorale and romantic pathos are synthesized. Compositions similar in name, written in this period for other solo instruments and ensembles, on the other hand, gravitate towards a romantic style with varying degrees of complexity of the musical language. This is "Meditation" op.61 for piano by American artists Arthur Foote (1853-1937; 1907), duet for violin and piano "Meditation" op.15 No.2 by Arthur Bergh (1882-1962; 1913) and written during the period of study Four meditations for orchestra op.14 by the Polish composer Czesław Marek (1891-1985; 1911–1913).

However, several works go beyond such standards. One of the first attempts is the symphonic poem for solo cello and orchestra "Meditation" op.16 by Eugène Ysaye (1858-1931; 1910), which is dominated by introverted contemplation, that is nevertheless replaced in the central section by a dramatized statement that in culmination reaches a high level and is associated with Liszt-Wagner pathetic climaxes. A much more radical version of "meditation" is the eponymous piece for cello and piano by Mykola Roslavets (1881-1944; 1921), written by him in the Kharkiv period. In 1921–1923, he was the rector and teacher of the Kharkiv Music Institute, at the same time heading the department of artistic education of the People's Commissariat of the Ukrainian SSR. Avant-garde principles of artistic activity were embodied by him, in particular, in spreading the creative ideas of the representatives of the "New Vienna school" - A. Webern and A. Schoenberg.

This "Meditation" embodies the idea of a "new worldview" and, accordingly, the renewal of the system of organization of the musical fabric. Nevertheless, in the activity of searching for a non-trivial way of expressing an avant-garde idea of the worldview, it is obvious that it relies on the models and principles of late romantic poetry. On the other hand, in "Meditation on Two Themes from the Day of Genesis" (1919) for a similar instrumental ensemble, a contemporary of Roslavets, Ivan Vyshnegradskyi, gravitates significantly more towards contemplative meditativeness and, in addition, presents the microchromatic system of this composer, which can be understood as a way out at that time to a higher the level of experimentation with sound fabric as a "sound continuum" focused on one emotional field. It is natural that the genre-stylistic spectrum of musical "meditations" has been significantly updated since the second half of the 20th century in connection with the general intensive development of art as a result of the penetration of computer and digital technologies into its sphere, the rapid rethinking of stylistic spectrums, the mutual influence of various types art, etc. One of these areas was film music, in which the poles of "meditation" are represented, on the one hand, by the light romantic "Hour of Meditation" (from Victor Saville's film "24 Hours of a Woman's Life") by Philip Green (1911-1982; England; 1968), on the other hand - music by the American composer of Japanese origin Teiji Ito (1935-1982) to Maya Deren's short film of the same name "Meditation on Violence" (1948/1949). The musical "Meditation on Violence" unfolds in accordance with the main idea of the film - the use of physical movement as a unique means of visual expression, embodied in a sound fabric based on the synthesis of

elements of traditional Japanese theater music with sound tendencies of early American avant-garde cinema. The constantly repeated intonation-rhythmic formula, maintained in a fairly stable timbral solution, is associated with a certain "looping". The smoothness of the middle layer seems to repel the sharp intonations of other textured layers. It is interesting that, due to the rather significant variability of these extreme layers and certain modifications in the central one, in general, a distinct impression of ostinateness/repetition of figures is created, which is very inventively dispersed in the musical canvas.

Tendencies towards the development of concepts at the beginning of the century turned out to be durable. In one case, they were associated with patriotic-nostalgic impulses of the post-war period. It is significant that such "meditations" appeared at chronologically different stages of the development of musical creativity and in geographically distant schools. A characteristic example of this "line" is "Meditation" for piano, harp, and string orchestra by the Polish and American artist Esther Allan (born Ester Boyarska; 1914–1985; 1950), which appeals to the romantic period of Polish musical creativity and in some places is distinctly saturated with associations regarding the music of its brilliant representatives. Examples of the same direction are "Meditations on Five Icelandic Themes" by the Icelandic composer Jórunn Viðar (born 1918; 1965), in which the composer uses original metric schemes and ornamental figures of Icelandic folk songs, as well as "Hungarian Meditations in Memory of Milán Füst" for soprano, piano and orchestra by Lajos Papp (1935-2019; until the 1970s) and "Concerto meditative" for guitar and strings by the Czech composer Jana Obrovská (1930-1987; 1971). It is quite natural that after such examples, meditativeness "seeps" into the memorial sphere and appears as a "musical offering" to traditions in a correspondingly rich context of representations. Such an opus is the piano cycle "Kaleidoscope" written in 1966 by the Slovak composer Eugen Suchoň (1908-1993; 1971). It is important that there was a peculiar branching of meditativeness in it: the third part presents "Meditation and Dance (In Memory of Bartok)" [Adagio, but not really, Allegro barbaro], and in the penultimate, fifth part, "Three parts from contemplation (To the unknown hero of the Slovak National Uprising)". Such an approach turns out to be not only non-trivial, but also anticipating the trends of the following decades – at least at the level of the cycle's organization, when one of its parts is attributed as a meditation (like Part II in Stephen Brodie Gibson's Sonata (before 2013).

It is significant that "meditative" influences penetrate into the field of popular music of the postmodern era. In this connection, it is necessary to mention, in particular, "Tango Meditation" for piano by the American composer Christopher Berg (born 1949; 1986).

In the second case, it is about sound experiments with complicated chromaticism, testing the possibilities of twelve-tone and other innovative stylistic ideas. This stylistic "offshoot" includes the "Meditations" for two pianos, strings and percussion by the Yugoslav artist Petar Ozgijan (1932-1979; 1962), the microtonal "Meditation" for mixed choir and saxophone quartet by the Estonian composer Erkki-Sven Tuyur (born 1959; 2003).

Quite a radical experiment for the time of writing (1969) is "Fresco" by the famous German composer Karlheinz Stockhausen for four orchestra groups, in the subtitle of which the author indicated its important characteristic: "Wall sounds for meditation". This piece was conceived and realized as music for the foyer of the Beethovenhalle in Bonn. Let us note that some critics characterize the work as music for the "foyer" (Wandelmusik; Wandelgang or Wandelhalle), thereby creating an allusion to the connection both with the "water music", "carnival music" specific to the Baroque era, etc., and to future ambient samples. This "meditation" can also be classified as spatial music, since listeners in their visit to Beethovenhalle change their individual "perspectives" moment by moment. In

addition, the idea of "meditations" was used by the composer in his operas.

Here, three retrospective programs of his music, performed live and recorded, were to be presented simultaneously in three auditoriums. The meditative tone, by design, was supposed to be formed during the perception of cluster glissandos and slowly changing sound "bands" and "surfaces". The glissando served as an important reference for the distanced and limited space of the private rooms of the orchestral groups. That is, in fact, "meditation" acquired the meaning of a psychological concept for penetrating the atmosphere of "wall sounds" or sound murals. This was pointed out by the composer himself in the introduction: "A fresco ... can create a 'sound environment' by itself, in connection with visual exhibitions (in museums), or in complexes of sacred spaces, as well as in meditation rooms or parks, serving as an aid to concentration".

It is symptomatic that in the same year (1969) with this work by K. Stockhausen, "Méditations sur le mystère de la Sainte Trinité" – "Meditations" or "Reflections on the mystery of the Holy Trinity" - for the organ of the genius Olivier Messiaen (1908-1992) appeared. In the sequence of nine untitled meditations, an important key to understanding their semantics and symbolism is the author's prefaces to each, and the composer sought to clarify not only verbal meanings, but also sound matter itself, calling his method "communicative language" or cryptophony.

The purpose of these "Méditations" is to understand God by listening to certain sounds. This purpose is read, in particular, in the preface to the fourth play: "All that we can know about God is summed up in these words, so dense and so simple: He is Words that we understand only in flashes, in rare and brief illuminations. Almost all of this work creates a climate, preparing the final vision. The unusual timbres and songs of the selected birds should evoke some unknown dimension" [15, p. 29]. Therefore, meditations reveal "some unknown dimension" for the composer, and such a definition is not unique in his work. Choral meditations are believed to be present in the "Transfiguration" oratorio and the mystery opera "St. Francis". Such episodes, involuntarily evoking an association with César Frank's "Commandments of Bliss" and - deeper in the national tradition - directing the search for sources to the previously mentioned work of H. Berlioz, are marked by ecstasy and religious awe.

The importance of meditativeness in the panorama of musical art of the last third of the century is comprehended both in view of the penetration into the deep planes of sound-writing symbolism created by the culture, and the continuation of the search for hitherto unknown dimensions declared by O. Messian. An example of the development of this trend is the "sound meditations" of the American composer and leader of electroacoustic improvisation Polina Oliveros [20]. The first on this path were the minimalist and innovative "Meditation on the Points of the Compass" (for 12 solo violins, choir and percussion, 1970), the idea of which was developed in "Sonic Images" (1972).

The next innovations were "Sonic Meditations I–XIL" (1971) and "Sonic Meditations XII–XXV" (1973). These opuses appeared in the process of developing a kind of "abstract" style of the composer and turning to the technology of tape and electronic music. The traditional sound organization was thus overcome, so to speak, from the middle. Therefore, in the end, the last two of the named works can be adapted for any solo or ensemble performance, as they are 25 short textual instructions that describe a performing or listening activity. To some extent, they are a conceptual answer to J. Cage's "4.33" - an answer from the standpoint of postmodern play. At the same time, the group of participants is gradually brought into the desired state, while the very term *meditation* "is used simply to mean focusing on an idea, an object, or the absence of an object without distraction or divided attention" [17, p. 3].

Understanding this meditative practice and the concepts embedded in it led to the fact that the next stage, stimulated by the study of Indian and Eastern cultures and religions, became the approach of the composer to the discovery of a way to teach people to recognize their own musicality. She saw this way in meditative improvisation based on meditation practices within ritual or ceremonial forms.

But in general, the context of meditation in Western art of the last third of the 20th century turned out to be quite "polarized". Among the compositions not named above, which represent the persistence of the genre's development along the lines of chorale preludes for organ, piano, or other compositions, there is Francis Shaw's Meditation for Radio for Christmas "Voices around a Star" (1972), Meditation on the Malotte "Lord's Prayer" for piano and string orchestra by Richard Freeman-Toole (born 1951; USA; 1988), "Meditation in Remembrance about Milan Faust" (1990) for soprano, piano, and orchestra by the Hungarian composer Lajos Papp (b. 1935)

4 Conclusion

There is no doubt that the range of works that directly embody the techniques, principles, and the very concept of meditation, mostly learned in religious practices, is much wider than the given examples and data. They are present in the works of such prominent artists as John Cage, Terry Riley, La Monte Young, Lawrence Ball, Tony Scott, Karlheinz Stockhausen, Ben Johnston, and R. Murray Schafer.

The presented panorama of data on "Meditation", made on the basis of the titles of works with the presence of the term "meditation" in them in Western academic creativity and experimental planes of musical art of the 20th century, allows asserting that, in this field, genre-forming processes and certain stages dominated by certain stylistic devices can be clearly traced. Therefore, the study of meditations in musical creativity as a specific genre formation, the stylistic means used by composers to achieve this genre status, as well as - more broadly - meditativeness in musical creativity is a very promising and relevant task, at least in view of the strengthening of intercultural interactions during at least half a century, as well as an understanding of the peculiarities of the deployment of meditativeness as one of the principles of modern musical creativity.

Today, confusion with the rhythm is more often associated with the game and with those characters who are closer to Turnerovskaya, liminoidality or Schechner's game, hiding the sacred roots of the game, rather than with the ritual, which had the form of individual initiation. On the other hand, the magico-religious rituals themselves are museumized and aestheticized, turn into protected heritage, function as part of festivals or folklore shows, or become a more or less exotic tourist attraction. Today, the question of the relationship between music and meditation looks very far from the cosmogonic sources that constituted the unity of musica mundana, musica humana, and musica instrumentalis. This was due to various processes that changed the understanding of both meditation and music.

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MOTOR ACTIVITY AND MOTIVATIONAL PRIORITIES OF STUDENT YOUTH IN UKRAINE

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Abstract: The article presents the data of the analysis of the preconditions for the development of the algorithm for programming students' independent classes in physical education of higher education institutions of Ukraine. The individual interests and needs of students for physical culture and sports during school hours and in independent classes are studied. The purpose of the study is to analyze the prerequisites for developing an algorithm for programming independent classes of students, clarifying certain issues of motivation for independent physical exercises in order to find the most optimal means and methods of training and sports and mass work, identifying individual interests and needs for physical education and sports during school hours and during independent classes. The study identified some issues of motivation for independent exercise in order to find the most optimal means and methods of training, sports, and mass work. Differences in self-assessment of physical health, physical fitness and their significance in the self-description of physical condition between students engaged in physical education in the I-II courses, and those who do not have this cycle of the program in the III-IV courses are shown. Studies of value orientations in the field of physical culture and sports have revealed a relationship with lifestyle, temperament, emotional state, genotype, and the content of the process of physical education. The considered preconditions of designing of algorithm of self-development were generalized for the purpose of creation of special social microenvironment in which stimuli to development of creative self-sacrifice, increase of working capacity, educational, sports, volunteer activity arise the most.

Keywords: Independent classes, Physical education, Self-development, Students.

1 Introduction

The growing rate of decline in the level of physical fitness, physical development, and health of Ukrainian students requires special attention of scientists, especially during the global pandemic. As it is shown by many researchers [1-14], the reasons for low physical fitness and health of students include the lack of attention to physical education classes from preschool education and throughout the period of youth education. The largest risk group, which is characterized by high mental and emotional load caused by mental work, which occurs in the absence of time, in combination with stress and nervous tension, is student youth.

According to the analysis of the scientific literature [15-31], one of the main reasons that affect the health of students is a lifestyle in which a significant role is played by a lack of physical activity. Physical education as a discipline of higher education not only aims to solve educational and health problems, but also provides a careful attitude to own health, active life position, the desire to practice sufficient physical activity in the desired forms and types of its manifestation. Students' attitudes toward compulsory physical education can be viewed by students from a variety of perspectives. After all, paying attention to their attitude to this subject, it is possible to influence the minds of young people thus improving the process of physical education.

The purpose of the study is to analyze the prerequisites for developing an algorithm for programming independent practices of students; clarifying certain issues of motivation for independent physical exercises in order to find the most optimal means and methods of training and sports mass work, identifying individual interests and needs for physical education and sports during class hours and during independent exercises.

The aim of the study was to find out the differences between students who are engaged in physical education in the I-II years of study, and those who do not have this cycle in the program in the III-IV years.

According to the questionnaire data, 611 students took part in our study, of which 403 (66%) were girls and 208 (34%) were boys.

We conducted a study of value orientations in the field of physical culture and sports of first and second year students who attend physical education classes, and third-fourth year students who do not engage in physical culture. They had differences that may be related to lifestyle, temperament, emotional state, genotype and the content of the process of physical education.

2 Material and Method

Sociological methods used include questionnaires to determine the motives, interests of students to the types and forms of physical education. Methods of mathematical statistics were applied to process the results.

The sample of participants who answered questions of questionnaires consisted of 403 girls-students (1st-4th years of study) and 208 boys (1st-4th years of study).

3 Results

The results of the questionnaire data allowed paying attention to the differences in the study of the need-motivational sphere of students, showing the difference in the features of their manifestations (Table 1).

Table 1: Sports and physical activities that students are engaged in

	Girls I-II year, n = 217		Boys I-II year, n = 103		Girls III-IV year, n = 186		Boys III-IV year, n = 105	
	n	%	n	%	n	%	n	%
involved in sports								
yes	168	77.4	88	85.4	96	51.6	43	41.0
no	49	22.6	15	14.6	90	48.4	62	59.0
Sports, clubs								
athletics	15	8.9	7	8.0	12	12.5	3	7.0
powerlifting	4	2.4	11	12.5	2	2.1	-	-
football	2	1.2	9	10.2	-		6	14.0
volleyball	21	12.5	8	9.1	9	9.4	7	16.3
basketball	2	1.2	6	6.8	-		8	18.6
dancing	28	16.7	3	3.4	14	14.6	-	
gymnastics	11	6.5	-		-		-	
gym	46	27.4	21	23.9	22	22,9	8	18.6
fitness	32	19.0	-		31	32.3	-	
judo	-		2	2.3	-		2	4.7
boxing	-		2	2.3	-		1	2.3
table tennis	3	1.8	8	9.1	4	4.2	4	9.3
swimming	2	1.2	2	2.3	2	2.1	2	4.7
karate	2	1.2	5	5.7	-		2	4.7
sambo	-		4	4.5	-		-	
number of workouts per week								
2	56	33.3	12	13.6	44	45.8	10	23.3
3	68	40.5	28	31.8	28	29.2	19	44.2
4	16	9.5	26	29.5	14	14.6	9	20.9
5 and more	28	16.7	22	25.0	10	10.4	5	11.6

Thus, according to the analysis of personal data, 168 (77.4%) girls and 88 (85.4%) boys of the I-II courses go in for sports, while a much smaller percentage of students of the III-IV courses - 96 (51.6%) girls and 43 (41%) of boys - confirmed their participation in sports. During the two years of study, the number of girls engaged in sports decreased by almost 20%, and the number of boys halved from 85.4% to 41%. This indicates a significant shortcoming in the sports and mass work in the educational institution, in the promotion of HLS, in the educational work of the institution, in the insufficient amount of free hourly resources of students.

Among girls, fitness sections were the most popular, attended by 32 (19%) girls of I-II courses and 31 (32.3%) girls of III-IV courses. Among the young men, the largest number of students attend the gym in both I-II courses and III-IV courses - 22 (12.9%) and 8 (18.6%) young men, respectively.

Slightly lower level of interest in girls was in dancing: 28 (16.7%) girls of I-II courses and 14 (14.6%) girls of III-IV year, and boys, accordingly, interested in playing basketball: in I-II year - 6 (6.8%) and 8 (18.6%) in the III-IV year. The majority of students continue their own traditions before playing sports that they acquired at school, so in the first and second years, in girls the next in the ranking was the volleyball section - it was attended by 21 (12.5%) girls and 8 boys (9.1 %), and in the III-IV years there were 9 girls left (9.4%) and 7 boys (16.3%). According to their own observations, students are more willing to attend sections led by familiar favorite teachers, whose personality and skills play a crucial, influential role. Therefore, the sectional form of organization of physical education classes should be a secondary, concomitant part of the pedagogical process, and not as the main one. Most of the sports listed among students disappear in the third-fourth year, because the new place of residence and study does not fully meet the needs of students. Thus, in the first and second years 11 (6.5%) girls were engaged in gymnastics, and in the third-fourth years, there were no students left in this sport; the boys could not continue classes in some martial arts. In the first and second years, 4 boys (4.5%) attended the sambo section, 5 (5.7%) – karate, 2 (2.3%) were attending boxing, and in the third and fourth years, no students took part in the sambo section, while in the karate section the number of students decreased to 2 (4.7%) boys, in boxing to 1 (2.3%) boys.

In the first-second year, the athletics section was attended by 15 (8.9%) girls and 7 (8%) boys, and in the third-fourth year the number of girls increased to 12 (12.5%), and 3 boys remained (7%). In the swimming section, the number of participants remained unchanged in the first-second year and in the third-fourth year, 2 girls and 2 boys in each sample.

In the first-second year, the largest number of students - 68 (40.5%) girls and 28 (31.8%) boys - have a desire to play sports 3 times a week, a slightly smaller percentage of girls 56 (33.3%) have a desire to play sports 2 times a week, and 26 (29.5%) boys, on the contrary, want to exercise more often, 4 times a week. At the same time, 28 (16.7%) girls and 22 (25%) boys like to go in for sports almost every day, which indicates a professional attitude to sports.

In the third-fourth year, the number of athletes who train about 5 times a week decreased for girls to 10 (10.4%), and for boys to 5 (11.6%) students. In these courses, almost half of 44 (45.8%) girls want to play sports less than in the I-II courses - 2 times a week, and 19 (44.2%) boys have left the desire to play sports 3 times a week. This indicates a change in the habits and interests of students in the other direction.

In own study according to the personal data (Table 2), the largest number of female students 178 (82%) of I-II year aim to improve their own health, while for 67 (65%) boys, in the same period of study, in the first place there is the purpose of physical activity as self-affirmation. Further, according to the rating, 65 (41%) girls wanted to achieve harmonious bodybuilding, 78 (36%) girls planned to enjoy physical activity, and 76 (35%) girls saw the goal of active leisure. Among first- and second-year girls, 52 (24%) girls saw a goal to increase their physical fitness, that is significantly less than 60 (58%) boys of the same years, which indicates quite different gender priorities. Comparing the quantitative distribution of female students, choosing the goal of normalizing body weight in girls of I-II year and III-IV years, it is possible to note that in the first group there was a fifth of female students (43 (20%)), but in the following courses, the number of female students increased significantly - 126 (68%). This is confirmed by numerous studies on the problem of gradual increase in overweight in the population. In the first-second year, only 10 (10%) boys are concerned by this question, but in the third-fourth year the number of such students increases to 17 (16%) people.

Table 2: Analysis of students' goals for sports

Aim	Girls I-II year, n=217		Boys I-II year, n=103		Girls III-IV year, n=186		Boys III-IV year, n = 105	
	n	%	n	%	n	%	n	%
Increase physical fitness	52	24	60	58	37	20	68	65
Enjoy physical activity	78	36	44	43	86	46	89	85
Achieve high sports results	22	10	36	35	52	28	38	36
Take part in competitions	26	12	15	15	11	6	26	25
Improve own health	178	82	23	22	158	85	47	45
Achieve harmony of body structure	141	65	41	40	100	54	68	65
Normalize body weight	43	20	10	10	126	68	17	16
For self-affirmation	17	8	67	65	19	10	58	55
Actively spend leisure time	76	35	49	48	84	45	86	82
To communicate with friends	98	45	62	60	108	58	69	66

A rather small percentage of female students in the first two years see the goal of achieving high sports results, it is 22 (10%) girls, the number of boys was 36 (35%) boys, which indicates a much greater sports orientation of boys. However, by the third-fourth year, interest in sports results among girls increased to 52 (28%) girls, and in boys to 38 (36%) boys, which indicates the consolidation of interest in the chosen sport over time in both girls and young men. The desire to participate in competitions among girls did not change significantly from I-II years to III-IV years, while 26 (12%) girls of I-II years and 11 (6%) girls of III-IV years had such desire. For boys, this goal was quite significant both in the first-second year in (36 (35%) students) and in the third-fourth year in 38 (36%) students.

4 Discussion

According to scientists, the most informative is social interaction, as only in the course of activity the consciousness of the individual is formed and developed. In this study, almost half - 98 (45%) girls of I-II year are engaged in various types of physical activity to be able to find a circle of like-minded people and communicate with them, while the number of peers of boys in this subgroup is much more than 62 (60%), and up to III-IV year, the vast majority - 108 (58%) girls and 69 (66%) boys - enjoy socializing with friends during physical education and sports. Namely this positive dynamics testifies to the effective work of specialists in this field and stimulates researchers to systematize old and develop new methods of researching interests and motives, and encourage young people to a conscious attitude to exercise and the chosen sport.

Optimization of the educational process with the introduction of new domestic and foreign forms of training for physical culture mass work is impossible without clarifying the attitude of students to physical education, the benefits of forms of exercise, and without clarifying the causes of negative attitudes to physical education (Table 3).

Thus, in the first-second year, there were 184 (85%) girls who have a positive attitude to physical education, while in boys those satisfied with the classes were a little more than 95 (92%) students; by the third-fourth year, the number of female students with a positive attitude to practical classes decreased to 140 (75%), and among boys, on the contrary, the number of satisfied students increased to 100 (95%). This may indicate that the organization of the educational process is more adapted to boys than to girls. The members of the national teams involved in

sports sections are 22 (10%) girls and 25 (24%) boys of the I-II year, and already in the III-IV year, the number of girls almost has not changed 19 (10%), but the percentage of boys-members of the national teams of the University decreased to 19 (18%) people. Weakening of motivation to play sports in senior students is due to the lack of compulsory practical classes and credit for physical education, which is the main incentive for students.

Table 3: Attitudes of students to physical education classes

	Girls I-II year, n=217		Boys I-II year, n=103		Girls III-IV year, n=186		Boys III-IV year, n = 105	
	n	%	n	%	n	%	n	%
Do you like physical education classes:								
yes	184	85	95	92	140	75	100	95
no	33	15	8	8	47	25	5	5
What forms of exercise do you prefer:								
Physical education classes	113	52	57	55			-	-
Classes in sports sections in extracurricular activities	22	10	25	24	19	10	19	18
Sports and wellness classes in fitness centers	43	20	6	6	78	42	26	25
Independent exercises	39	18	15	15	89	48	60	57
What you do not like in conducting physical education classes								
I like everything	165	76	75	73	140	75	84	80
Time schedule of classes	4	2	8	8	22	12	11	10
Uniformity of exercises	2	1	4	4	4	2	-	-
I don't like everything	4	2	2	2	2	1	-	-
Changing clothes	2	1	1	1			-	-
Not enough inventory and lack of modern equipment	9	4	4	4	4	2	-	-
Criticism of friends	2	1	1	1			-	-
Rare holding	2	1	5	5	2	1	8	8
Run	4	2			-		-	
Lack of desire	17	8	2	2	2	1		-
Standards	4	2		-	11	6	2	2

Self-esteem and self-control are an integral part of self-development and at the same time a necessary condition for the effectiveness of physical education. Thus, analyzing the questionnaire data, it was found that 39 (18%) girls of the I-II year and 15 (15%) boys prefer independent physical education classes, and already in the III-IV year the number of such students increases to 89 (49 %) girls and 60 (57%) boys. The importance of self-control is not limited to its positive impact on the process of mastering motor actions - it also contributes to the formation of adequate ideas about personal physical capabilities. This is necessary to form in students a sense of confidence in their abilities and capabilities. Therefore, in the developed strategy of self-development, there were bases of self-control at development of physical qualities. The use of the above forms of classes contributes to the controlled impact on the process of physical and mental development of students. The essence of the principle of "combined influence" is that the forms used allow achieving specific changes in the physical sphere, which in turn contribute to targeted changes in the mental sphere of students. According to the analysis of negative factors influencing the attitude of students to compulsory physical education classes, there were the following: inconvenient time of classes, the predominant monotony of exercises, the need to change clothes, lack of modern equipment, ridicule and criticism of classmates; for some young men, rare conducting classes was on obstacle, as

well as the presence of running, lack of desire and their own laziness; not a large number of students like the standards. All factors have been studied in detail and taken into account in the development of the educational process.

Our attention was drawn to the study of students' perceptions of their physical health, physical fitness, and the importance of these categories (Table 4).

The largest number of first- and second-year students, both girls 76 (35%) and boys 36 (35%) rate their health at 8-9 points; in girls, the same number 76 (35%) rate their health in 6-7 points, guys with the same assessment of their own health were less than 26 (25%) students; 22 (10%) girls and 15 (15%) boys had the highest score on their health, and no first-year boys scored the lowest score, while 4 (2%) girls felt very bad. According to the results of personal data in the III-IV year, self-esteem of their own health in both girls and boys was higher than in students of the I-II year. The largest number of female students of III-IV year 74 (40%) rated their health at 8-9 points, and almost half of the boys 47 (45%) had the same score, which indicates an improvement in the well-being of students to III-IV year. However, the number of students with the highest health scores decreased, with 15 (8%) in girls and 11 (10%) in boys; 41 (22%) and 47 (25%) girls gave themselves an average and low grade, while 37 (35%) and 11 (10%) boys had such grades, respectively.

Table 4: Self-assessment of physical health, physical fitness, and their importance

Score	Girls I-II year, n=217		Boys I-II year, n=103		Girls III-IV year, n=186		Boys III-IV year, n = 105	
	n	%	n	%	n	%	n	%
Assessment of own physical health (1 to 10)								
1-3	4	2		-	9	5		-
4-5	39	18	15	15	47	25	11	10
6-7	76	35	26	25	41	22	37	35
8-9	76	35	36	35	74	40	47	45
10	22	10	26	25	15	8	11	10
Assessment of own physical fitness								
1-3	11	5	-	-	26	14	2	2
4-5	43	20	15	15	47	25	16	15
6-7	91	42	26	25	82	44	45	43
8-9	50	23	46	45	22	12	26	25
10	22	10	15	15	9	5	16	15
What is the importance of physical health for professional activities								
1-3	-	-	-	-	-	-	-	-
4-5	33	15	10	10	28	15	16	15
6-7	54	25	15	15	47	25	26	25
8-9	76	35	41	40	65	35	37	35
10	54	25	36	35	47	25	26	25
What is the significance of the level of physical fitness for professional activity								
1-3	26	12	-	-	19	10	-	-
4-5	98	45	26	25	65	35	24	23
6-7	54	25	36	35	74	40	28	27
8-9	39	18	31	30	28	15	37	35
10	-	-	10	10	-	-	16	15

According to the general analysis, it is possible to trace the improvement of students' well-being in senior years of study, which indicates adaptation to mental and physical load.

According to the self-analysis regarding their physical fitness, the largest number of first-year students 91 (42%) rated themselves at 6-7 points. The boys felt more confident - their largest number of 46 (45%) people rated their level at 8-9 points. The highest score was chosen by 10 (22%) girls and 15 (15%) boys. However, in the III-IV years, these indicators gradually decrease, and while the number of girls did not change significantly in the distribution, in boys almost half of the students 44 (45%) rated their level of physical fitness worse than in the I-II year (6-7 points). Also, in contrast to the initial years, in the III-IV years the number of girls who assess their physical fitness in 1-3 points increased from 11 (5%) girls to 26 (14%) girls, which indicates a certain lack of physical activity in everyday life, and most importantly, a conscious statement of this fact.

According to the students' answers to the question "What is the importance of physical fitness for professional activity?", the majority of 98 (45%) first-year students scored only 4-5 points out of 10, and none of this group of students indicated the highest level of physical fitness preparedness. Moreover, 26 (12%) girls even gave 1-3 points to this value, not paying attention to the importance of the issue of their own well-being. Unfortunately, students are not only not physically sufficiently prepared, but also psychologically have no idea about the level of workload in future professional activities. In contrast to girls, 10 (10%) boys gave 10 points to the value of the importance of physical fitness for professional activities, which indicates self-confidence in the future. One third - 31 (30%) boys - of the I-II year gave 8-9 points to the value of the level of physical fitness, which is also a good example of conscious attitude to themselves and their physical self-development, while another third, 36 (35%) boys gave an average grade (6-7 points), and a quarter of students-young men 26 (25%) gave a lower than average (4-5 points) score to the value of physical fitness. In the third-fourth year, the highest assessment of the value of the level of physical fitness (10 points) was given by 16 (15%) boys, and again by no girl. A higher percentage of average (8-9 points) was also given by a higher percentage of 37 (35%) boys comparing to 28 (15%) girls. The average rating (6-7 points) of the importance of the level of physical fitness for professional activity was given by 28 (27%) boys and 74 (40%) girls, and the lower average score was given by 24 (23%) boys and 65 (35%) girls, respectively. The lowest assessment of the importance of the level of physical fitness for professional activity was given by 19 (10%) girls and by none of the boys. The low motivational component of students' own physical development and the reduction of the general level of physical fitness of young people from the beginning to study in senior years is reflected in this questionnaire. Therefore, at the moment, there is a development of the tendency of orientation of pedagogical activity at the university to the realization of personal interest of students in order to increase the level of their physical, intellectual potential and spiritual sphere by means of physical education. Not only physical activity during classes becomes important, but also the development of ways of self-knowledge and self-improvement of the individual through physical activity.

The following table presents an analysis of priorities among psychophysical traits that are of paramount importance for students in future professional activities (Table 5).

Table 5: Priority of psychophysical features that are of paramount importance for future work

	Girls I-II year, n=217		Boys I-II year, n=103		Girls III-IV year, n=186		Boys III-IV year, n = 105	
	n	%	n	%	n	%	n	%
What psychophysical features are of paramount importance for future work								
Random and long-term memory	217	100	98	95	186	100	105	100
Information processing speed	163	75	98	95	158	85	105	100
Mental resilience	174	80	82	80	177	95	100	95
Empathy for strangers	130	60	52	50	130	70	53	50
Willpower	109	50	98	95	140	75	89	85
Movement coordination parameters	87	40	52	50	65	35	58	55
Static endurance	98	45	93	90	177	95	103	98
Overall endurance	152	70	95	92	153	82	92	88
Speed of decision making	217	100	103	100	177	95	105	100
Reflection	98	45	57	55	74	40	68	65
The desire for self-improvement	195	90	88	85	177	95	103	98

In the nervous system, mobile (or inert) in the course of development, under different living conditions, upbringing, learning different psychological personality traits can be formed. Depending on the level of strength of the nervous system, high or low efficiency of nerve cells and their degree of depletion is manifested. These properties of the nervous system have corresponding manifestations in human activity and behavior. Therefore, when choosing a future profession, they cannot be neglected, and the current challenge of society requires the development of the necessary psychophysical characteristics to strengthen the nervous system. Thus, for first- and second-year students, the most important psychophysical features were the following: working and long-term memory, speed of decision-making, the desire for self-improvement, mental stability. These features were a priority for 80-100% of female students.

For boys of I-II year, the following were added to these same signs: willpower, general and static endurance. In the III-IV year, there were no significant changes in the choice of priority psychophysical features, but in all courses about 50% of students did not include empathy for strangers, reflection, coordination parameters in the list of priorities. Since the nature of individual characteristics of human is twofold, such individual characteristics as interests, inclinations are characterized by inconsistency. Therefore, they must be taken into account in order to stimulate their development.

5 Conclusion

The study found that several groups of factors affect the physical fitness, performance, biological status, and health of students. These include healthy lifestyle (50-60%), social and physical environment (20-25%), genetic factors (20%), medical care (10-15%). As the most influential factor, lifestyle can be perceived as a way of integrating students' needs with their respective activities. That is why the formation of a typical structure of forms of life of students in the direction of unity and expediency of self-regulation and self-development, self-organization and self-discipline will strengthen, improve the body's adaptive capabilities, creating conditions for full self-realization, adding self-confidence.

The considered preconditions of designing of self-development algorithm were generalized for the purpose of creation of the special social microenvironment in which stimuli to development of creative devotion, increase of working capacity, educational, sports, volunteer activity arise the most. In parallel, we propose to maintain psychological comfort, stimulate the disclosure of psychophysiological potential of the individual, the actualization of the process of self-improvement of students. In the implementation of this strategic direction, students will form responsibility for their own health in the structure of cultural development, which is manifested in the stylistic features of behavior to build themselves as a full-fledged person in the moral, spiritual, and physical aspects of life. Such an organization of physical education of young people will act as a model of social relations of an open society of successful and healthy people.

The content of the organization of a conscious sports-oriented way of life of students should consist of individual and group style of behavior, organization of living conditions and life activities, samples of which are fixed in the form of future lifestyle. The need for self-improvement will gradually take shape in a way of life in which personal behavior optimizes the interaction of the individual with society in the socio-domestic and economic conditions of life.

Systematic physical improvement should gradually reveal the primary, natural potential of the individual, which includes three interrelated components: basic needs, physical and characterological potential.

The nature of basic needs ranges from needs to save and improve life to self-destruction, degradation, from the level of personality strength (confidence and responsibility) to personality weakness

(uncertainty, dependence), from freedom – to self-reliance, to a state of dependence - reliance on others, a well as from development – to self-realization, self-actualization, to habitual, stereotypical existence. An important component of the strategy of self-development is to stimulate the improvement of communicative qualities (communicative potential) of young people, which is an important part of the adaptive potential. Because student youth are in a social environment, success in learning and activities is related to the ability to build relationships with those close to them.

The characterological potential includes motivational components of character traits and temperament. Character traits are formed up to 17-18 years and to some extent are amenable to education and self-development. With the help of pedagogical influence, it is possible to model, provide individual manifestation of the process of realization of basic and other motivational aspects.

Physical potential has the greatest level of motivation and influence on the development and self-improvement of young people. The concept of self-development strategy is based on biological and social factors, theoretical and methodological justification, as well as on learning factors that stimulate, shape, and support purposeful behavior. Therefore, the process of physical education should be managed not only during practical classes, but also should contain tools and methods that ensure the development of functional capabilities of all subsystems to the optimal level in any form of organization of classes that provides full disclosure of physical potential. This, in turn, has the property to change the nature of functioning on the basis of the properties of self-regulation and adaptation of the organism and psychoregulation. Such behavior is based on a clear awareness of own goals and values. Reliance on one's own values generally provides additional resilience to the individual. Moreover, the more these values coincide with the generally accepted ones, the stronger the internal platform of the individual, which is responsible for external actions as one of the possible options for adaptive change.

Awareness of a person's degree of responsibility for own development and realization of talent indicates that he/she has all the prerequisites for self-development, while adequate assessment of the situation and own behavior is the path to self-realization - the path of self-development.

The results of the questionnaire indicate the prospects of improving physical education programs for students in the direction of creating conditions for strengthening personal participation in them, by involving students in classes of their own choice of time and sport that promote personal growth of students. A conscious attitude to own physical condition increases students' interest in physical education, which has a positive impact on the development of physical qualities of those involved.

According to the analysis, it is possible to conclude that a significant rethinking and correction of organizational forms of classes and the content of physical education programs is needed. A more in-depth study of students' attitudes to the content and organization of the process of physical education in educational institutions allows taking into account the needs of students.

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CULTUROGENESIS AS SYSTEMOGENESIS AND ANTHROPOGENESIS HOMO FABER: THEORY OF CYCLIC DEVELOPMENT OF ART BY F.I. SCHMIDT IN THE CONTEXT OF MODERN PHILOSOPHICAL REFLECTION

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Abstract: The relevance of the philosophical and anthropological reconstruction of the theory of cyclical development of art by F.I. Schmidt's point of view is that the author's model helps to go beyond linear discourse, which is structured as modern - postmodern, to define a compositional model of culture as a certain systemogenesis of culture. The purpose of the article is to carry out a philosophical reconstruction of the model of cultural genesis as a categorical synthesis of nature-based dominants of cultural cycles, to determine - in the context of the dispositive and transpositive – a system of the anthropological turn in the space and time of world culture. The research methodology consists of comparative and systemic approaches, transcendental, phenomenological and dialectical methods. Scientific novelty consists in revealing the features of the transition from one cultural cycle to another. Systemogenesis as the unity of the appeal of cultural dynamics to its own metaphysical origins (recursion loop) and prediction of the future (acceptor of action) is reconstructed as culturogenesis in the context of cultural cycles defined by F. Schmidt. The method of phenomenological description and project-model reconstruction of socio-cultural dynamics of culture is described. The anthropogenesis of *Homo faber* is reconstructed in the context of right-hemisphere and left-hemisphere determinants of cultural creation, as the formation of the image of a human in art and culture. In the conclusions, it is emphasized that the theory of the cyclical development of art implicitly presents the integrity of culture and man as a subject of cultural creation, and provides an opportunity to go beyond linear discourse in cultural and philosophical reflection on world cultural practice.

Keywords: Anthropological turn, Culture, Postmodernism, Metamodernism, Art.

1 Introduction

The state of modern philosophical reflection testifies to the search for the metaphysical foundations of cultural creation, which was defined as the postulation of anthropological, semiotic, visual, etc. turns, as well as in an effort to constitute a paradigm of the so-called "metamodern". According to the definition of Dutch philosophers Timotheus Vermeulen and Robin van den Akker, metamodernism is a research paradigm that describes the latest stage of cultural construction: "While modernism expresses itself through utopian syntax, and postmodernism expresses itself through hopeless parataxis, metamodernism obviously expresses itself through a-topical metaxis. The Greek-English Lexicon translates atopos (ατοπος) as strange, extraordinary, paradoxical. However, most theorists and critics insist on the literal meaning: a place (topos) for which there is no place. We can thus say that atopos is both a place and a non-place, a territory without borders, a position without limits. We have already described metataxis as being here, there, and nowhere at the same time. In addition to this, taxis (τάξις) means ordering. Thus, while modernism presupposes temporal ordering, and postmodernism presupposes spatial disorder, metamodernity should be understood as a space-time that simultaneously exists in both order and disorder. Metamodernism replaces the boundaries of the real with the boundaries of the limitless future; it replaces the boundaries of familiar places with a description of the limitless. In fact, this is the "destiny" of the metamodern man: to pursue endlessly receding horizons" [14]. The future is defined as "limitless". However, "chasing endlessly receding horizons" is not the best way to achieve any goal, if it is to be achieved at all. So, the situation of reflective allusions around "oscillations", which is the ideal of the metamodern vision of the world as a certain oxymoron, is the newest y-topos. However, the desire to see the world as a certain Gesamtkunstwerk - a universal work of art - is positive.

2 Method

Confusion is manifested by those authors who postulate a whole set of "turns" as the metaphysical origins of the constitution of reality. Indeed, according to V. Savchuk, there are too many of them – one can choose any wanted: ontological, anthropological, lieguistic, semiotic, visual, etc. However, the anthropological turn is eliminated, connected with the ontological turn. "Despite all efforts to give certain research optics the status of a turn, it is still not possible to find an ontological resource in the anthropological turn. The pseudo-Cratilian thesis "Everything is a person" not only does not open up new ways of knowing regional topos or equips individual disciplines with them, but also does not bring us closer to the understanding of modern man, who, moving from himself to himself, needs to understand the other, non-human - in the activity of object" [16, p. 31]. Thus, the ontological phenomenon of otherness allegedly denies the anthropological turn.

Even more difficulties arise with the interpretation of the concepts "systemogenesis of culture" and "anthropogenesis". Most often, it is about the evolution of culture and civilization either from the point of view of the positivist paradigm or the theocentric one. Our task is to reconstruct the logic of the formation of culture (and art) as a cultural-historical anthropology of creative (artistic) man, which must be explained as systemogenesis, according to P. Anokhin (symbiosis of heterochrony) [2], and the formation of human integrity as a cultural phenomenon in the context of world culture and civilization (symbiosis of heterotopia), according to M. Foucault [5]. The subject of the reconstruction will be the theory of the cyclical development of art in addition to the art history, archeology, and psychological works of Academician of the Ukrainian Academy of Sciences Fedor Ivanovich Schmidt [17].

3 Results and Discussion

F.I. Shmidt - a well-known art critic, culturologist, researcher of Byzantine art - held a chair at Kharkiv University, was invited by M.S. Hrushevskyi to Kyiv, where he worked at the Institute of Archaeology. In 1925, he returned to St. Petersburg (Petrograd), but in 1933 he was repressed and exiled to Tashkent, and then was shot in 1937. The scientist's name was "rediscovered" by V. Prokofiev [15]. V. Afanasiev dedicated a biographical essay to Shmit [1]. In the monograph of Yu. Legenky [8], a detailed cultural reconstruction of Schmidt's theory is given, because it was carried out from the perspective of visual culture; now it is time to consider the thoughts of the scientist in the context of philosophical anthropology. It should be noted that, to some extent, the experience of the cyclical development of art was rethought by R. Klimov [7].

Systems theory does not exhaust the horizons of human integrity. This integrity is pre-systemic, i.e., oriented to the complex of salutary intentions of a person's zoomorphic past, systemic – it gives the entire conglomerate of socio-cultural integrity of a person as a unity of system models (system-mechanism, system-organism, system-multicultural integrity); it is supra-systemic – rooted in the theocentric paradigm of understanding man as "image of God". Thus, the problem of systemogenesis as survival, inclusion in the coninuum, is best demonstrated by the idea of an "acceptor of action" as a prediction of the future by P. Anokhin.

Anokhin notes, that the entire history of the animal world serves as a clear example of the improvement of this universal and oldest regularity, which could be called an anticipatory reflection of reality, i.e., in the million-fold accelerated development of

chemical reaction chains that in the past reflected successive transformations of this reality. Returning to the ascending premise of this problem, we could say that the reflection, which anticipates reality, is the main form of adaptation of living matter to the spatio-temporal structure of the inorganic world, in which sequence and repeatability are the main temporal parameters [2, p. 18]. Therefore, each of the subsystems is genetically generated and lives in different temporal realities: the function of sucking precedes the function of vision, etc. Something similar is happening in the system of culture (art), where architecture is almost ahead of the design praxis of all other design technologies, applying the "genetic algorithm" paradigm.

The French theorist of large systems, Edgar Morin, claims that the more Homo Sapiens develops, the more he becomes *Homo demis* - an unintelligent man. Morin sees the future of any system in its renewal, regeneration. Juvenalization of the system prolongs its age. Turning to the metaphysical foundations of the social system is defined by Morin as a "recursion loop". "The production of self", Morin writes, "is a term that defines a retroactive process that rebuilds the system, reproduces it continuously, in the ceaseless renewal that constitutes its existence. Regeneration is a term that refers to how any productive system produces an increase in entropy, which means a tendency to degenerate. That is why it needs an increase in generativity or generative power to regenerate wholeness. The continuous production of itself represents, from this point of view, continuous regeneration" [13, p. 223].

The synthesis of heterochrony in culturogenesis can be imagined as a prediction of the future in an ethical and aesthetic ideal and an appeal to the metaphysical origins of culture - traditions, guidelines, etc. It is more difficult to describe the synthesis of heterotopia. There is no one-vector orientation. Euclidean space does little to understand today's realities. It is also impossible to understand the metamodern theorists' march to nowhere. The border in general is blood, a fight, a struggle. Now, when all the extensive resources of territory capture have been exhausted, there is only one way left - to go back and look for one's own metaphysical origins. All other ways have been exhausted: the progressivism of colonization exhausted itself during the Enlightenment, globalization turns into the search for national identity under the conditions of permanent colonization of countries affected by "color revolutions", the post-Soviet space is in a state of stagnation and the search for alternative paradigms that the West is in no hurry to recognize.

However, the y-topos was fixed in Morelli's works as a centered space, and Tommaso Companella also built his "library" in a centered space. City plans evolved from centric, polycentric systems to systems of horizontal planning as a flexible flow of space. These archetypes became the canonical metaphysical axes in the coordinates of proxemics - the doctrine of the expediency of spatial placement of objects. Regarding the understanding of the limit as the basis of cultural creation, the idea of "meta-metaphysics" was put forward as a philosophical system that overcomes new and new horizons of the limits of the natural dimension of the world [9].

Thus, the answer to the question "What perversions with space do philosophers from Holland talk about?" is as follows: about purely virtual, manipulative-media-digital realities of culture. This is enough to turn to F. Schmidt's model and reconstruct its heuristic potential for cultural creation. The toolkit for reconstruction has been outlined, but a few more remarks exist: we will use M. Foucault's concept of "dispositive", which was developed contrary to the expansion into philosophical reflection of "dialectics", "subject" and the entire European metaphysics. Philosophical "laughter" as a remnant of European metaphysics became the epilogue of philosophical anthropology in the book "Words and Things", where all anthropology is questioned [3].

Schmidt used a purely composite (compositional) approach to understanding a work of art. However, the Latin *compositio* has prerequisites - *dispositio* (contrast) and *transpositive* (transition from one position to another). Foucault, like all postmodernists, neglected dialectics; his "dispositive" is a hymn of reconciled

contradictions beyond time and space [4]. It seems that for the cultural-historical reconstruction of Schmidt's model of culturogenesis, there is a need to introduce the concept of "transpositivity", which also captures the extra-dialectical space of the transition into another. The question arises: where is the place of dialectic here? It should be emphasized that it appears only in Ancient Greece. Earlier, it did not exist, and later with the age of computer technology, it will not exist either. In Ancient Egypt, the pharaoh acted as a substitute for the deity, and the phrase: "I am the one who..." shows that "Self" was not personified as the producer of the action. The subject was born in the European culture of antiquity. Everything can be calculated, except the past, future life and death. The death of culture as a living organism is not comforting, because the problem has been sufficiently worked out in the school of "philosophy of life", in particular, by O. Spengler.

Cyclicism as life "after death" or the eternal life of the human spirit (depending on how one prefers to understand) in Schmidt became a well-tempered 'piano' for the composition of categories: rhythm (Paleolithic), form (Neolithic), composition or grouping (Ancient civilizations), movement (antiquity), space (New Time), light or time (New Time). Despite all the schematism of this composite scheme, it gives the main thing - organismism, natural dimension of the categorical synthesis of world culture. The most important thing is that Schmidt's model assumes the natural, eternal existence of culture as a dynamic of cultural cycles (see Fig. 1). Schemes of culturogenesis arose in different years, because they record discrete and continuous models of the display of culturogenesis.

The last remark, before starting to analyze Schmidt's model, is as follows: it is also necessary to provide a "composite" model of culture as an object of reconstruction and transformation. In contrast to the substantive understanding of culture (culture is the carrier of the Absolute, God, the Great Other, the Spirit) and its phenomenological understanding (culture is that in which a person is given the world - one cannot leave culture as well as consciousness), in contrast to the activity (Marxist) interpretation of culture, where it is understood as the processing of nature, man, and everything essential, the composite model, which we defined as "subjective one" [11]; it is essentially an anthropic integrity of behavior (ethosphere), activity (praxiosphere), states (aesthetosphere) that exist in the anthropogenic, "nourishing", according to L. Gumilyov, landscape.
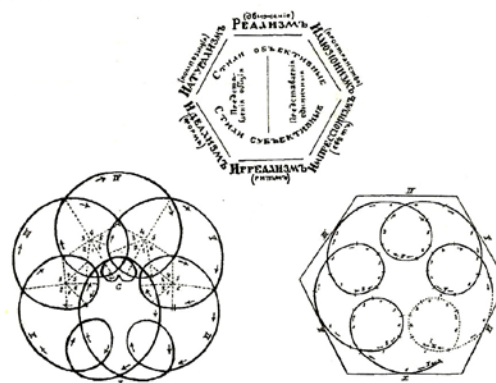
* Реализм – Realism
* Иллюзионизм – Illusionism
* Импрессионизм – Impressionism
* Ирреализм – Irrealism
* Идеализм – Idealism
* Натурализм – Naturalism
* Стили объективные – Objective styles
* Стили субъективные – Subjective styles

Figure 1. Culturogenesis modeles.

The anthropogenic landscape is given as a natural oikumene and as a landscape created by man (combination of buildings, recreations, material world, artistic artifacts, etc.). It is important that genetically the first one is the ethosphere, the world of behavior as a regulator of human existence. Moral dominance is present in all ancient civilizations. The dominance of the state as an ecstatic world of human relations is characteristic of the Middle Ages. The activity defined by the first interactive civilization - Ancient Greece - becomes extremely relevant during the Modern era. Postmodern "utilizes" the anthropic space of culture and cannot define its own dominant, inertially continues the business technologies of the Modern.

In frames of one more clarification, it should be noted that Schmidt is talking about anthropological shifts or turns. With each new cycle, a person is "juvenalized" in order to "age" again, reaching the end of the cycle of cultural creation. However, the drivers are not ontological, semiotic, visual turns, but those ingredients of human activity that correspond to the left and right hemispheres of the human brain. Once, V. Ivanov defined that the "left-hemisphere" and "right-hemisphere" phenomena of culture [6], the mind (reflection as a subjective factor), and feeling (the world of aesthetics, art, reflection on the world of feeling) are the real factors of those revolutions, which Schmidt designated as the "magical" six of culturogenesis.

Therefore, humanity is not moving towards the "new Middle Ages", according to M. Berdyaev (this stage of cultural genesis, according to the writings of Schmitt, is pushed further). The "first" dispositive to the context of Schmitt's model is the dialogue between "time" (postmodern culture) and "grouping" (ancient civilizations: Ancient Egypt, Mesopotamia, Ancient Iran, Latin America, China, Japan). Categorical synthesis is surprisingly harmonious, because time has a prerequisite of grouping, temporalities (spatial and temporal interactions, which are described as "cyclic time"), time is structured by discrete units of its reference. Today's "globalization" problems of the counter-positioning of East and West in the face of North America and China testify to the fact that a new civilizational paradigm of the praxiosphere is being formed, where the Chinese principle of "inaction" (the greatest traveler does not leave home - Chinese wisdom testifies) is designed to harmonize the expansionism of the European activism. However, the "synthesis" of the contradictions of the actors of the geopolitical game is not yet foreseen. The ecosystem of the cultural cycle, which is labeled by Schmitt with the category "time", is in the state of formation of that anthropological upheaval, which can lead either to total degradation or to the search for consensus. Conceptual intentions have not been formed, hence the attempt to "stretch" the stage of postmodern culture for another half a millennium, according to the Dutch theorists of metamodernity.

The dispositive "rhythm" (Paleolithic) – "movement" (antiquity) is also categorically extremely harmonious, because movement is the basis of rhythm, which is formed as its temperament. According to Schmidt's model, this dispositive is marked with a vertical line as an image of a person's vertical independence in the world. All known vertical constellations of cultural archetypes (thereomorphism/anthropomorphism/theocentrism; pity/shame/reverence, according to Solovyov; subconscious/Ego/Superego, according to Freud) are a certain reflection of Narcissus of the hominid genus, who did not distinguish himself from the image - Narcissus of antiquity, who fell in love with his other self; A postmodern narcissist, who, according to A. Zhid, looks into the ripples of water, falls in love with himself and immediately forgets. This cycle carries with it the intentions of permanent renewal of the Renaissance, which is nourished by the golden age of antiquity.

The dispositive "form" (Neolithic) – "space" (Modern era) is also no less harmonious, because any form has a prerequisite for the spatial implications of cultural creation. The expansion of symbolic connotations, the expansion of imperial snobbery and the expansion of great religions implemented that cultural globalization, which led to the totality of the Spirit, God, the Great Other, sharpened the sense of otherness, another world,

dialogue. Man is pluralizing, and his activity is no longer described by triads (either philosophical or religious). Sophia as Eternal Wisdom does not find a place in the Christianity - V. Solovyov somehow shamefully considers it a kind of hypostasis of Christ. The energy' expansion of the architectural dome of the Roman Pantheon, the dome of Sophia of Constantinople, the megalomaniacs of Bullet and Ledoux in the megalomaniacs of A. Speyer becomes a soulless mechanism. According to F. Nietzsche, God is dead. According to M. Berdyaev, the "new Middle Ages" is coming, which becomes possible after the parades of the totalitarian Gesamtkunstwerk.

Therefore, the heuristics of F. Schmidt's model is that he extremely subtly, even artistically defined the categorical dominants of cultural cycles, which are both natural universals and concepts of each individual culture. The dispositive approach to the reconstruction of culturogenesis in Schmitt's model revealed the metaphysical foundations of natural harmony, which neither metaphysics nor meta-metaphysics are able to describe. These foundations overcome only life and death. It is not for nothing that the graph of the unity of dispositives in Schmidt's model resembles the letter Ж, which in the Slavic alphabet is the signifier of the verb "you live". Therefore, the harmony of nature, which is embedded in the concept of cultural genesis of Schmidt, in its categorical synthesis, encourages optimism. At the end of his book "Art: Its psychology, its stylistics, its evolution", Schmidt writes with sadness and hope: "History inspires despair if you look at life from the point of view of the past and what has already been achieved; for the past must perish. After all, look into the distance at the perspectives that are opening up, and, if you are not stone-hearted, you will be embraced by admiration" [17, p. 328].

The "history of styles" and cycles, according to Schmidt, looks much more dramatic from the point of view of its interpretation from the "transpositive" position. The positioning distance of the cycles is reduced, the transition looks like a transition through death, catastrophic. Let us try to interpret Schmidt's six cycles as permanent dynamics of transition - I (real history of cultural genesis) and transition - II (prognostic "repetition" of cycles after the "end" of recent history). We will immediately note that there will be no "end of history", according to F. Fukuyama.

The transition from the culture of the Upper Paleolithic to the Neolithic in the system of right-hemispheric coordinates of culturogenesis as the anthropogenesis of *Homo faber* was catastrophic - the shining images in the caves, which had a sacred meaning, turn into "pale" schematic drawings: the images of the Great Goddess (of the sky) - a circle, its segments, zigzags (water signs, which also represented the sky), dashes, etc. Almost nothing has changed in the system of left hemispheric coordinates of culture - only the phenomenology, the system of signification of the theriomorphic deity has changed. After all, the apophatic type of cultural description of the Absolute has already been formed, which is the most important anthropological constant of the turn.

The border between the Neolithic and Ancient civilizations is not marked as the decline of Neolithic iconography (graphematics) - on the contrary, all ancient cultures, according to V. Ivanov, are "left-hemisphere" [6], because the right-hemisphere coordinate indicates the formation of "regional ontologies" of the sacred. The diversity of expression of theriomorphism in Ancient Egypt, Mesopotamia, and Ancient Iran is impressive with the cult of the Sun and the Sky. These metamorphoses can especially be read in the ornament [10].

A turn in the anthropic coordinate system of culture occurs when the gods become human and lose their zoomorphic features. The transition from the cycle of ancient civilizations to antiquity is the loss of the primary sacred syncretism and the selection of a new, cosmological syncretism, according to O. Losev. The image of a person becomes more differentiated, because it is no less cosmological than it was in ancient civilizations. Again, the right-hemisphere characteristic of cultural artifacts is radically changing, because the left-hemisphere component is also

radically changing. A new image of the world is being formed, which is associated with European activism, universalism, and anthropocentrism.

The transition from Antiquity to the Early Modern (Middle Ages) even more radicalizes the transformations of both right-hemisphere signified cultures (the iconography of art changes with the advent of Christianity) and left-hemisphere ones – the ratio type *Homo faber* universalizes the apophatic type of description and combines it with scientific progress, the formation of the latest technologies of cultural construction. Mature Modernism (Renaissance and New Times) "legalizes" the dominant activity (praxiosphere) as a universalizing principle, which leads to the differentiation of the subjects of cultural creation, the collapse of cosmologism, and the marginalization of the image of man as the image of God.

The boundary between Modern and postmodern culture, including metamodern, is generally blurred, which is why the anthropological turn is easily fixed in right-hemisphere signified cultures, left-hemisphere ones testify only to greater differentiation of the anthropic (subjective) sphere. Therefore, it can be stated that the reflective subject in the history of cultural genesis has gone through stages where it is defined as:

- A powerful entity that enters the consciousness of all possible participants in the cultural dialogue, this is how the thought was presented in the culture of Ancient Egypt: "I am the one who existed as Khepra [god of the sun], I existed and everything that exists existed";
- A dialogizing being, where "that one" seems to have access to the consciousness of the reflecting person (this is the transcendental subject of the classics and all the dialogized concepts of the subject of culture);
- A dialogizing entity that constructs (constitutes) the world with consciousness, which is always immanent to consciousness (Husserlian phenomenology as a type of reflection);
- Fragmented dialogizing subject that "gathers" in the act of reflection of postmodern cultural practices [9, p. 25].

The anthropic (subjective) dimension of culturogenesis as a certain type of systemogenesis should be reconstructed based on the above types of reflective subject. In particular, we cannot say anything about the type of reflection in the Paleolithic and Neolithic, except for its reduced understanding in the system "Self" – "That one", where the voice of "Self" can be heard only in the figurative discourse. The cultures of ancient civilizations already "speak" in different voices; according to Ivanov, here the type of reflection of a powerful being - a substitute for the Sun is impressive with anthropic cosmologism and universalism. The "transcendental subject" is not an invention of German classical philosophy - immanent transcendentalism as a cosmology of thought (Nusu) is known as far back as Ancient Greece, and in the system of Neoplatonism it acquires the sacred features of panentheism (God is here and there). Dialogism is characterized by a developed dialectic.

Similarly, one should not absolutize phenomenology as the acquisition of E. Husserl's philosophy. The syncretism and cosmologism of the ancient Greek eidos (intelligent species) disintegrates into phenomenon and noumenon during the Early Modern period (conflict of nominals (words) and universals – concepts); in the German classical philosophy of Kant, it is designated as a triad phenomenon – noumenon – thing in itself. The subject appears on the scene as a self-sufficient act of consciousness - the cogito, which in Descartes loses all corporeality. Postmodern reflection undergoes a reverse metamorphosis: everything is a social "body" - physical, psychiatric, philosophical, artistic, etc. This new syncretism becomes the 'guarantee' of the newest "artistic religion" - the metamodern "cult" of a-topos as the totality of Nomo faber's presence in the world.

Let us try to present the transition system - II in Schmidt's model as the dynamics of a prognostic transpositive. The project-prognostic approach can no longer be presented in the system of binary oppositions. The project as "thrown forward" should be described in the system of ternary coordinates, trinary, according to Y. Lotman [12], where contradictions are eliminated and the harmony of the transition is achieved not by the meta-metaphysical reflection of cultural creation as its reduction to natural universals (rhythm, form , grouping, space, time), but with a certain reconstruction of the metasubject of reflection as a universal producer of the harmonious origin of cultural genesis. It can be imagined as a definition of a system-creating dominant in the matrix of culture-creating subjects. That is, it is important to find the type of reflection defined in the history of culture, which will ensure the elimination of contradictions in a certain transpositive of the dynamics of cultural cycles.

The "first" transpositive is a transition: postmodern - metamodern ("second Paleolithic") – "second Neolithic". There are two transitions here: modern – metamodern and metamodern – "second Neolithic". No matter how strange or inadequate this terminology may seem, there is no other, because we are working within the framework of the reconstruction of F. Schmidt's model. The essence of the project-model approach to the reconstruction of the transpositive in Schmidt's model is that the "projector-forecaster" is placed in the middle cycle and reflects on the "return back" (recursion loop, according to E. Morin) and anticipates the future as an acceptor of action (P. Anokhin). That is, the systemogenesis of culture is modeled as a project-reflective reality.

Thus, the fact that the "second Paleolithic" has already arrived is evidenced by the entire phenomenology of cultural creation: the total pan-naturalism of visual reality, the virtualization of politics, everyday life, and ideology. The newest everyday sacredness is being formed, which is presented by a whole host of "secular religions". The subject of this transpositive can be described as "fragmented", plural, metamodern. If the return to metaphysical origins is a reflection, then it is a routine description of the "degradation" of man in multicultural realities and globalization, to which we are already accustomed. After all, predicting the cultural values of the "second Neolithic" is more problematic.

It is possible to get rid of the modern visual-virtual naturalism of the socio-cultural identity of a person under the condition of a radical change of consciousness, "noema" as a constitutive principle of reality, according to Husserl. This is possible as a result of "meeting" with alien civilizations, or as a forced asceticism due to environmental circumstances, provided that the human psyche is destroyed by means of digital technologies. "Schematicism", the iconic syntagmatics of the "second Neolithic", will become possible also under the condition of "direct" entry into another consciousness by means of communication technologies. According to K.-O.Apel, no communicative ethics will be necessary. One metacultural language will be formed as a "collapsed name" - the newest myth of the trans-reflective pattern. The latest nominalism can be imagined as the latest pictographic logography. Chinese and Japanese languages are closer analogs to the future metalanguage.

The second transpositive is the relation of cultural cycles: "second Neolithic" – "second system of ancient (global) civilizations" – "second antiquity". The epicenter of project-model transformations is the cultural cycle of "second global civilizations", the prototypes of which are modern transnational companies, clusters, advertising brands, etc. The utopia of "electronic government" also becomes a heuristic motivation for social design within the framework of Schmidt's model. The reflective subject of cultural creation becomes a "powerful entity that enters the consciousness of all possible co-participants of the cultural dialogue" on the basis of the transcendental imperative - map-schemes of activity, behavior, state. The shadow of S. Lem with his "Sum of technologies", "Solaris" already covers the megaproject of the "second" six culture cycles. It cannot be otherwise, as the project reflection of the design of social systems is extremely inertial.

Turning to the metaphysical origins - the sign-pictographic metalanguage of the "second Neolithic" - is a 'guarantee' of communicative consensus, and the prediction of the new increased interactivity of the "second antiquity" provides an opportunity to single out what is special in communication - its own separate discourse. Culture becomes a series of composite discourses, and a large role belongs to the anthropogenic, nurturing landscape. Therefore, the design of the "second antiquity" is a permanent reality of the formation of the Renaissance as the latest anthropocentrism.

The last transpositive of the model space of cultural cycles of Schmidt is the relationship between the cultural cycles of the "second antiquity" - the "second Modern" - the "second postmodern". Modernism becomes a constitutive factor; the subject of cultural creation becomes the "second" reprint of a transcendental subject, which resembles Narkis of Grigory Skovoroda, who fell in love with his better "Self". Cordocentrism (heart), immanent transcendentalism (a person has another, ideal heart - the epicenter of the Holy Spirit) will lead either to the New Testament of the Holy Spirit, or to Gesamtkunstwerk as a unity of theurgism, vitalism, ornamentalism (this triad is constitutive of the Modern style). The ornamentality of the essence [10] becomes the latest permanent cyclicism of open space, unknown to postmodernity, which has set itself boundaries and transcends them as a task of cultural creation. Therefore, according to M. Berdyaev, the "new Middle Ages" will arise "after" the Renaissance. There is nothing surprising in this: each new "cycle" of the six cultural cycles inverts time, transforms the space of world culture.

4 Conclusion

The task of this article was not to make an authentic forecast of the formation of future cultural populations, but only to explain the project logic of the cyclical understanding of cultural creation, presented by F. Schmidt in 1919. It seems that a century is not enough to understand the heuristic meaning of the nature-based cosmologism of the *Homo faber* culture, implicitly defined in the work of Fyodor Ivanovich Shmidt.

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LEGAL FORCE OF INTERNATIONAL CRIMINAL LAW NORMS

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Abstract: The article analyzes the concept of the norm of international criminal law, its characteristics, structure. Particular attention is paid to characterizing the legal force of international criminal law. The issue of combating international crime is currently one of the most pressing and vital issues of modern international criminal law. As a branch of international law, international criminal law was formed in the second half of the twentieth century. Overtime has acquired a feature of a recurring character, manifested in the growing number of rules that carry out regulatory action in close connection with other countries' management of international law. The affiliation of a norm to its normative system gives it binding legal force. A significant increase in the number of law rules led to the formation of its own system of sources, which became a form of existence of the practice. Norms have become real, their content has been enriched, and the scope has expanded.

Keywords: Norm of international criminal law, Structure of legal norm, Legal force of norm, Imperative norms of jus cogens, Sources of law.

1 Introduction

In the late 20 – early 21st century, the international community's efforts were aimed at the development and adoption of criminal procedure rules in the field of combating international terrorism, organized crime, and other forms of international danger. To this end, international conventions, resolutions, and recommendations are adopted, international forums and congresses are convened, and international organizations' activities that contribute to the development of international norms to combat international crime are intensified.

Despite a large number of internationally approved conventions (universal and regional), the focus of the United Nations, the Council of Europe, the European Union on combating crime, terrorism, corruption, drug trafficking, money laundering, ongoing work on the implementation of International standards of administration of justice, policing, punishment and treatment of offenders, legal regulation of relations in this area are not perfect: international crime is growing rapidly, diversifying the forms and types of offenses and expanding their geographical boundaries. Therefore, the development, systematization, and codification of international legal norms in the field of international criminal relations require special attention from states and international organizations. It also encourages the conceptual study of the concept of international criminal law, its structure, and legal force.

The most important feature of the system of normative regulation of international relations is that it contains a normative basis for creating a mechanism to maintain general peace and security and comprehensive cooperation on a universal basis. Professor I.I. Lukashuk writes: "Social norms are the main regulation instrument. They arise simultaneously with human communication and are present in any group of people, in any social system. This indicates that without norms, the social organism cannot exist. Society does not tolerate a regulatory vacuum. All forms of public consciousness use this tool. They are largely normative in the sense that they affirm the goals, principles, ideas about the proper rules of human behavior, the organization of society, the state, etc." [14]. The diversity of regulations (morals, law, customs, traditions, corporate norms, religious norms) is due to the complexity of its object. According to scholars, the question of the nature and binding force of international law and its norms has been and remains controversial in legal science, which is relevant for international criminal law [19].

2 Materials and Method

The author uses a conceptual approach to clarifying the legal force of international criminal law, studies the techniques of scientists to the subject of study, which determines the soundness of theoretical research, and modern principles of scientific methodology.

The article aims to provide theoretical and legal characteristics of the legal force of international criminal law and identify its features, species characteristics, and structural organization.

3 Results and Discussion

Norms of law belong to the traditional and most common categories (concepts) of law, which embodies one of its most characteristic features and other social regulators — normative. Normative means that norms do not reflect individual life situations, but the most common, repeatedly repeated, typified, and positively evaluated people's actions and associations.

If the state creates the norms of domestic law, the standards of international law are of collaborative nature. Norms of international law and its principles are created not by bodies standing above states and other subjects of international law but by themselves due to decisions based on mutual concessions, and reasonable compromises agreed with positions on specific international issues. When creating a rule of international law, states act as sovereign and equal subjects, and therefore their expression of will is legally equivalent. As subjects of international law, international organizations can adopt legally significant documents based on the relevant statute, which gives them certain rule-making powers. In any case, only subjects of international law can make certain rules of conduct legally binding.

All norms regulate only socially significant, internationally significant behavior. The norm is the legal system's primary element, which is only in this capacity have all its properties and can function. This pattern is inherent in international law. The American Professor O. Schechter emphasizes that "ideas and norms come into force when they become part of an interconnected system" [33].

International law can be defined as an ideal behavior model in certain typical circumstances. The norm reflects natural international relations. On the other hand, its function is to actively influence these relations to maintain them following the established model or bring them into line. Scholars note that "international legal norms are expressed in international treaties, international customs, acts of international conferences and agreements, documents of international organizations. Norms of international law are created by subjects of international law based on the free will of equal participants in international relations" [11]. Created in this way, the norm is a formally defined rule that regulates interstate relations by establishing rights and obligations for entities, provided by a legal mechanism of protection. The formal definition means a distinctive feature of international law, which consists of exceptional clarity and certainty in the accuracy of concepts and structures. The norm of international law is understood as a rule of conduct that is recognized by the subjects of international law as legally binding. In essence, such a legal prescription is a "coordinated will of states", which has a dispositive or imperative character [10]. The fact that the rules of international law are the result of coordination and interdependence of the will of states is different from the limitations of domestic law. Compliance is determined by membership in the world community and is ensured by the means at its disposal.

An international legal norm must meet the following requirements:

- Regulate relations between subjects of international law, which is familiar to all social (not only legal) norms;

- To be obligatory for the subjects of this right, which is understood as the existence of a particular legal force, as non-legal norms also have their binding force;
- Be of a general nature, which means: the legal norm must be calculated for a certain number of cases and not be an individual decision, i.e., have an impersonal nature;
- Contain the rights and obligations of the subjects of international relations.

The norm of international criminal law has the same properties but peculiarities. First, the rights and responsibilities conferred on states and other subjects of international criminal law are the content of the norms of international criminal law. Second, the norm of international criminal law defines the rights and obligations of issues in a more clearly defined form. The degree of generalization is much lower than in the norms of general international law [16]. Third, the norm of international criminal law is recognized by states and other subjects of international law as legally binding. Fourth, international criminal law provides for the liability of the subjects of these relations for offenses.

A characteristic feature of the norm of international criminal law is its structure. According to the theory of law, the construction of a legal norm traditionally presupposes the presence of three elements in its structure: hypotheses, dispositions, and sanctions [26], https://zakon.rada.gov.ua/laws/show/995_118 - top [28]. The rule of law must first list the conditions under which it is applicable (hypothesis); then the very rule of conduct (disposition) should be set out; finally, the norm should contain an indication of the consequences of violating this rule (sanction).

It should be borne in mind the characteristic feature that in the regulations of international criminal law, the definition of punishment is the exception rather than the rule. Most international criminal law operates through the provisions of national criminal law indirectly and under domestic law. Sanctions are contained in the national criminal laws of states after their incorporation into domestic law. In general, the application of sanctions is a very weak point in international public law, as in interstate relations, there are no such institutions (identical to the state) that could guarantee compliance with international norms adequate to the internal actions of states. According to the fair remark of Professor M.Sh. Bassiouni, "The question of punishment in the system of international criminal justice is not so much about what punishment to apply, excluding the death penalty and bodily harm, but rather the philosophical and political basis and purpose of punishment for international crimes" [1].

Most norms of international criminal law contain only a disposition and a hypothesis, i.e., they are definitive and regulatory (prohibitive). Indefinite sanctions contained in most international treaties aimed at combating crime are reference in nature, being a kind of element of sanctions of criminal law in national legal systems. Specific sanctions in case of violation of the disposition may be provided by the rules of special agreements, statutory documents of international courts (tribunals), and domestic law.

Norms of international criminal law provide for the application of sanctions by states individually or collectively and by international organizations – international courts (tribunals), which are endowed with increasing powers in this area. In particular, the Rome Statute of the International Criminal Court provides for the following measures of punishment: imprisonment for a definite term, calculated in the number of years and not exceeding the number of 30 years (Article 77, Part 1, paragraph A); life imprisonment in case of committing an exclusively serious crime and taking into account the individual circumstances of the person found guilty of committing such a crime (Article 77, Part 1, item b); fine (Article 77, part 2, item a); confiscation of income, property, and assets obtained directly or indirectly as a result of the crime, without prejudice to the bona fide rights of third parties (Article 77, Part 2, paragraph b) [33].

The Convention for the Suppression of Bribery of Foreign Public Officials in the Case of International Business Transactions of 1997 [30] https://zakon.rada.gov.ua/laws/show/998_154 provides for two types of punishment – imprisonment and confiscation or confiscation. United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988 [29] https://zakon.ra da.gov.ua /laws/show/995_096 obliges the Parties, taking into account the gravity of the offense, to apply the following types of punishment: imprisonment or other forms of imprisonment, penalties, and confiscation. CoE Convention on the Protection of the Environment through Criminal Law 1998 [31] several coercive measures are envisaged: imprisonment, fines, confiscation, measures to restore the environment. The actions of states that violate imperative norms are qualified as a gross violation of international law, as aggression, which results in the most severe international sanctions, up to the suppression of the aggressor by force under Art. 42 of the UN Charter.

A feature of international criminal law is the complex structure of the rule, in particular, the UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 [29] https://zakon.rada.gov.ua/laws/show/995_096 contains obligations of states to criminalize certain types of transnational crime and more than previous conventions in the field of combating drug trafficking, the degree of specificity formulate the composition of crimes. In addition, the rules of international criminal law are present in several international treaties with a broader subject of legal regulation. Thus, the 1982 UN Convention on the Law of the Sea [27] provides for the obligation of member states to establish criminal liability for piracy, transportation of enslaved people and drugs, unauthorized radio and television broadcasting from the high seas, etc.

Norms of international criminal law are heterogeneous; their classification according to numerous criteria is complex, multifaceted, and not exhaustive. It is worth noting the type of norms in the context of these problems by the method (method) of legal regulation – dispositive and imperative. The bulk of norms in international law is dispositive norms, while in international criminal law, the share of imperative norms is growing significantly. Dispositive is a rule within which subjects of international law can independently determine the rules of their conduct and mutual rights and obligations in international relations, taking into account specific circumstances. For example, under Art. 5 paragraph 1 of the UN Convention against Corruption 2003, "Each State Party, by their principles of its legal system, develops and implements or implements an effective coordinated anti-corruption policy that promotes public participation and reflects the principles of law and order, proper management of public affairs and state property, honesty and integrity, transparency and accountability" [35]. Dispositive norms have full legal force. Unless the subjects have agreed otherwise, they are obliged to comply with the dispositive norm and are responsible in case of its violation.

One of the characteristic features of modern international criminal law is the presence in it of a set of imperative norms (jus cogens – imperative law), which have special legal force. The latter is the inadmissibility of deviations from the norms in the relations of individual states, even though their agreement.

3.1 Legal Force of International Criminal Law Norms

Imperative norms set specific boundaries for certain behaviors; these are norms from which deviation from the interstate community recognizes as inadmissible [6]. Professor I.I. Lukashuk emphasizes: "one of the characteristic features of modern international law is a fairly large array of imperative norms, jus cogens, which are endowed with special legal force. In the doctrine and materials of the International Law Commission, the terms "imperative norms" and "jus cogens" are often used interchangeably. The same applies to the Vienna Convention on the Law of Treaties of 1969 (Article 53). Meanwhile, "jus cogens" means rather a set of imperative norms, imperative law" [12].

A custom or contract that contradicts the mandatory rule will be invalid. The new imperative norm invalidates the existing norms that contradict it. It is believed that imperative norms are a new phenomenon. I don't think so. International relations of the past could not do without imperative regulation. The principle of *pacta sunt servada* (treaties must be observed) was imperative, without which there is no international law. Prohibitions on piracy and the slave trade, as well as some rules of warfare, were imperative. The novelty is that today the imperative norms form a whole complex that determines the nature of international law, its goals and principles, the main content. In addition, the imperative norms have received official recognition.

Prerequisites for the formation of imperative law were created by the UN Charter [25]. It is often suggested that imperative norms emerged after the formation of the United Nations [17]. World War II showed that the current world order could put humanity on the brink of disaster. The need to change it became obvious. The UN Charter enshrines the overriding force of its obligations over the obligations of its members under some other international agreement (Article 103). It was also found that the UN respects the principles of the Organization even by non-member States, as this may be necessary to maintain international peace and security (Article 2, paragraph 6). All this was a significant contribution to the formation of imperative law. According to scholars, "the basic principles of international law have the highest legal force and are binding on all states."

Further development of mandatory law is associated with the adoption of the Vienna Conventions on the Law of Treaties of 1969 and 1986, according to which the mandatory rule is the one that is "accepted and recognized by the international community as a whole as a rule only the next norm of general international law, which would be of the same nature" (Article 53 "Obligations that have force under international law, regardless of the treaty") [26], [28]. Fifty-three states that a treaty is irrelevant if it contradicts the mandatory norm of general international law at its conclusion. If there is a new compulsory rule of general international law, then any existing treaty, which conflicts with this rule, becomes invalid and terminated (Article 64).

The nature of imperative norms has been thoroughly considered in the International Law Commission [21]. In the Commentary to Art. 37 of the draft articles on the law of international treaties, the International Law Commission noted that the emergence of norms that have the character of "jus cogens" is a relatively new phenomenon [23]. In discussing this article, most participants pointed out that the imperative norms express the common interests of states and the world community as a whole [4]. The same view was emphasized in the responses of several governments and expressed during the discussion of the draft articles in the Sixth Committee of the General Assembly. This fact was noted by the Austrian scientist A. Ferdross, who said that it is about the interests of all humanity [24]. On this basis, it was concluded that the articles on the law of treaties should take into account the existence of certain norms and principles from which states cannot deviate on the basis of bilateral and regional treaties [22]. However, some participants in the discussion were skeptical about this idea. As a result, the article on imperative norms was adopted with 87 votes; against – 8; abstained – 12 [34]. Over time, the application of mandatory rules has gained ground in the practice of international courts; in particular, the International Court of Justice was one of the first to refer to the mandatory law in deciding the case of US diplomatic and consular personnel in Tehran. In the Order on Preliminary Measures in the case, the Court qualified the violation of immunity as a violation of mandatory rules [7].

An imperative norm is a norm that is expressed in categorical prescriptions and operates independently of the subjects of international law. International law issues are not entitled to voluntarily change the scope and content of rights and obligations established by mandatory rules. It can be assumed that imperative norms (jus cogens) form the basis of all

international law and international relations in general, the base of the entire international legal order and world political stability. Imperative norms have the highest legal force; any other norms of international law must comply with the norms of jus cogens. The norms of jus cogens are the basic norms-principles of international law, including those enshrined in the UN Charter. Their content is disclosed and supplemented by the Declaration on the Principles of International Law Concerning Friendly Relations and Cooperation between States under the UN Charter of 24 October 1970 and the Final Act of the Conference on Security and Cooperation in Europe (CSCE) of 1 August 1975; they also include the principles of observance of the laws and customs of war.

3.2 Legal Force of International Criminal Law Norms

Norms of international criminal law are created by its subjects, first of all by the states using the agreement in which maintenance is the agreed will of the parties. Arguments for this position are, first, the lack of supreme power in the international system as a source of rule-making (In Tunkin (Eds) 1982: 45–48). Unlike national law, international law is not inherent in the supreme power; it is not associated with any higher authority than the state. Secondly, the number of subjects adopting an international normative act is limited; sometimes, it is a minimal number of states.

When creating a rule of international criminal law, two agreements are reached: one on the content of the rule, the other – on giving it legally binding force. Recognition of binding force under international law is determined by the needs of the life of the international community, the fundamental interests of states. Nevertheless, legal regulation of international relations is an absolute necessity, and, therefore, giving international law binding legal force is inevitable. There is no alternative to this.

The source of the legally binding force of international criminal law is states' agreement. The legal force of universally recognized norms of international criminal law is generated by the consent of states, the consent of the international community as a whole, which is embodied in the principle of conscientious fulfillment of obligations under international law. The provision according to which the agreement is a source of the binding force of international criminal law and international law, in general, is reflected in international practice, including judicial. Scholars note that "the objective social reality and the current state of development of the IP show that the source of the legally binding force of international law is the agreement, the will of the states, and the general agreement of the international community with the basic imperative principle of the ICJ. *Sunt servanda* is confirmed in international practice, including the judiciary" [15].

Recognition of binding force under international criminal law is determined by the needs of the life of the international community and, the fundamental interests of states, the need to combat international crime. Legal regulation of relations in the field of combating international crime is necessary. Consequently, the provision of binding legal force to the norms of international criminal law is inevitable and dictated by the needs of the international community.

Legal force can distinguish imperfect and dispositive norms of international criminal law. At once, we will make a reservation that here the first group of norms dominates over the second. For international criminal law, the category of "dispositiveness" is considered atypical and rarely used. Most of the provisions in international criminal law are imperative, and most often, they are rules of jus cogens, from which the subjects of international law cannot deviate even by mutual agreement. The provisions of the Vienna Conventions also apply to international criminal law in terms of the status of mandatory norms.

There is no hierarchy of rules of law in international criminal law, which is observed in national law, in particular in the law of the continental legal family. However, we note the status of the basic principles of international criminal law, which cannot be implemented without more specific treaties or customary rules,

such as mandatory rules, jus cogens. The main distinctive qualities of mandatory norms in international criminal law are the highest legal force, which in some cases is retroactive, and a unique mechanism to ensure their implementation [18].

By the nature of their action in international criminal law, mandatory rules of international law can be divided into those that have a direct effect. They may not be included in domestic law and those that have an indirect effect. Such rules must be included in the peculiarities of international criminal law in comparison with the rules of national law. They are intended to be applied in relations between two or more specific subjects. They cannot be extended to other participants in international communication except generally accepted principles and norms of international law. Still, their share is small in the normative system of international law.

The statutes of international organizations (UN, International Court of Justice, International Criminal Court) and international tribunals (Nuremberg, Tokyo, International Tribunal for the Former Yugoslavia and Rwanda) are imperative in international criminal law. The creation of the last two tribunals by the UN Security Council has become a unique case of the direct creation of norms and institutions of international criminal law – and the peculiarity of such tribunals was not in the contractual nature but in "tacit recognition of their states" [13]. "Of particular importance in the development of the legal force of international criminal law o law and international criminal law in general, has the establishment of the International Criminal Court in 1998 with the adoption of its Statute" [36]. The legal force of the Rome Statute, which ensures the implementation of international criminal law, is beyond doubt. At the end of the twentieth century, Italian scholar A. Cassese wrote: "While national criminal law is based on the generally accepted principle of formal certainty, international criminal law contains numerous rules that do not detail the essential elements of the crime" [5]. The Rome Statute largely overcame the shortcoming, and each definition is clearly articulated to reflect the current rules of international criminal law and meet the requirements of certainty in criminal law and developed by the Preparatory Commission of the International Criminal Court under Art. 9 of the Statute of the Elements of Crimes assist the Court in interpreting and applying the articles governing its substantive jurisdiction [8].

The imperative norms of international criminal law include the main goals and principles of international criminal law; principles and norms that consolidate the achieved level of humanity (on the rights of human beings, peoples, national minorities, the protection of victims of war, on the prohibition of the use of certain weapons, on the crime of piracy, slavery, etc.); norms prohibiting aggression, interference in internal affairs, colonial and other foreign domination; norms prohibiting crimes against humanity: genocide, apartheid, slavery, etc. Imperative norms are also contained in numerous anti-criminal conventions adopted to combat crimes of an international nature (transnational crimes): the UN Convention against Transnational Organized Crime of 15 November 2000, the Convention on Laundering, Search, Seizure, and Confiscation of the Proceeds from Crime. 1990, Council of Europe Convention on Cybercrime of 23 November 2001, Council of Europe Convention on the Prevention of Terrorism of 16 May 2005.

Thus, the highest legal force in international criminal law is endowed with norms-principles and imperative norms contained in treaties (conventions, agreements, statutes, declarations), and they are provided by implementation in public relations. At the same time, the question arises of recognizing the legal force of acts of international organizations in international criminal law. The significant increase in resolutions adopted annually by international organizations reaches many thousands; they can relate to various aspects of global life, depending on the subject of the Organization. Among them, there is the vast majority of resolutions-recommendations.

Legal acts of international organizations are a practical form of expression of the will of the states by which they are adopted and have a recommendary character. Unlike a treaty, in which

the intention of states is clear and definite, acts of international organizations are usually a step leading to the completion of forming a compact or custom. However, the international Organization may adopt resolutions binding on states [9]. This right is enshrined in the Organization's charter and does not arise from its own decisions. For the first time, this problem was most acute in connection with the adoption by the UN General Assembly in 1950 of the Resolution "Unity for Peace", and was resolved in favor of compliance with the statutory powers of the Organization. The statutes of international organizations usually contain severe restrictions on the adoption by its bodies of acts binding on states. For example, the UN Security Council may take such decisions only in the event of threats to peace, violations of peace, and acts of aggression and in compliance with special procedural requirements (Chapter VII of the UN Charter) [20]. The Security Council exercised this power by adopting Resolution 827 of 25 May 1993 to establish an International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Former Yugoslavia since 1991. Later, on 8 November 1994, the Security Council Resolution 955 established the International Criminal Tribunal for the Prosecution of Persons Responsible for Genocide and Other Serious Violations of International Humanitarian Law Committed in Rwanda and Rwanda Citizens Responsible for Genocide and Other Similar Violations. J. Brownlee and A. Cassese noted that the norms that provide for international criminal responsibility for genocide, crimes against humanity, and war crimes are imperative [2], [3], [4].

Documents of the Security Council were adopted based on Chapter VII of the UN Charter, which empowers this body to adopt resolutions that are legally binding on all UN member states. Of particular importance are the Security Council's anti-terrorism resolutions, in particular those aimed at countering terrorist organizations such as the Taliban and Al Qaeda (Resolution 1267 (1999) of 15 October 1999, Resolution 1333 (2000) of 19 December 2000), Resolution 1363 (2001) of 30 July 2001, Resolution 1373 (2001) of 28 September 2001), which prohibited states from financing and providing any other support to terrorist organizations. Thus, UN Security Council Resolution 1373 (2001) of 28 September 2001 [32] called on States to take several measures to strengthen their legal and institutional capacity in the fight against terrorism, including by establishing criminal liability for active and passive assistance, a specified illegal act. UN Security Council resolutions note the close link between international terrorism and drug trafficking, money laundering, arms trafficking, and other transnational crime and oblige states to develop a national strategy to combat terrorism and other crimes and criminalize specific actions. The UN Security Council also adopted several unprecedented resolutions to combat piracy and robbery off the coast of Somalia ("anti-piracy resolutions"): Resolution 1816 (2008) on 2 June 2008, Resolution 1950 (2010) on 23 November 2010, Resolution 1976 (2011) on 11 April 2011.

Even though the binding nature of resolutions has been repeatedly emphasized in UN documents, Security Council resolutions are adopted in specific situations on certain aspects of criminal activity. In particular, the Guidelines for Legislators on the Universal Legal Regime against Terrorism, prepared by the United Nations Office on Drugs and Crime in 2008, stated that Security Council resolutions on terrorism, many of which were adopted under Chapter VII of the Charter of the United Nations "The United Nations, which gives the Security Council the right to adopt resolutions that are binding on all Member States of the United Nations, is considered one of the key components of the global legal framework for combating terrorism" [11].

Of great political and legal importance are the resolutions of the General Assembly on cooperation, security, and disarmament, adopted in full compliance with the UN Charter. Back in the middle of the last century, Professor F.I. Kozhevnikov wrote that "the establishment of the General Assembly, this UN body, adopted by him unanimously, goes beyond simple

recommendations and acquires legal force" [10]. General Assembly resolutions, like other provisions, extend the rules previously formulated by a limited number of States to other non-treaty States. However, as Brownlee noted, "whatever the political or moral force of the General Assembly's recommendations, they are not legally binding". O'Connell supported him. The recommendatory nature of the General Assembly resolutions is noted in Art. 10, 11, 14 of the UN Charter [25]; however, despite all this, we note the great role of the General Assembly in the law-making process and the progressive development of international law, as its establishment has legal value. Resolutions and other acts of the General Assembly are an aid, certain stages in the general process of rule-making. Still, they do not lead to their completion, i.e., they are not direct sources, but only those ways that may ultimately lead to the rule of international law.

The rules on the criminalization of criminal acts of resolutions of both the UN General Assembly and the Security Council relate to specific situations, are advisory rather than binding, and do not serve as a criminal prohibition but are important in formulating mandatory rules of international criminal law.

4 Discussion

Based on the study and theoretical generalization of the research topic, the following could be emphasized: the norms of international criminal law are the normative basis for the functioning of the mechanism of universal peace and security and the necessary basis for cooperation between states and international organizations.

The norm of international criminal law must meet specific requirements but has its characteristics, which are manifested in the content, formal definition, level of generalization, structure, and legal force. In modern international criminal law, there is a set of imperative norms (jus cogens – imperative law), which have a special legal power: the inadmissibility of deviations from the norms in the relations of individual states even using their agreement.

Dispositive norms are also legally binding. The source of their binding force is the agreement of the states, which gives legal force not only to a separate treaty but also to international law. Imperative nature is endowed with norms-principles, contractual norms, statutory provisions, and customary rules of conduct. Legally binding force in international criminal relations is determined by compliance with the regulations provided by the system of international legal sanctions.

5 Conclusion

The norms of international criminal law contain a normative basis for creating a mechanism to maintain general peace and security, as well as comprehensive cooperation between states and international organizations on a universal basis. A norm is a formally defined rule of conduct that regulates interstate relations by establishing rights and obligations for subjects; it is a legally binding rule recognized by the subjects of international law and provided by a legal mechanism of protection.

The norm of international criminal law must meet certain requirements (formal certainty, regulatory nature, binding nature, understood as the existence of a certain legal force; general, not personalized nature; contain the rights and obligations of subjects of international relations), but must its features. The rights and responsibilities conferred on the subjects of international criminal relations are the content of the norms of international criminal law. Their content is expressed in a more clearly defined form because the degree of generalization is much less than the rules of general international law. The norm of international criminal law is recognized by states and other subjects of international law as legally binding. International criminal law provides for the liability of the subjects of these relations for offenses.

Another feature of the norm of international criminal law is its structure, which provides for the presence of three elements: hypotheses, dispositions, and sanctions. The peculiarity is that in the normative legal acts of international criminal law, the definition of punishment is the exception rather than the rule. Most international criminal law operates indirectly through the provisions of national criminal law and follows domestic law. Sanctions are contained in the federal criminal laws of states after their incorporation into domestic law.

In modern international criminal law, there is a set of imperative norms (jus cogens – imperative law), which have a special legal force: the inadmissibility of deviations from the norms in the relations of individual states using their agreement. Dispositive norms are also legally binding. The source of their binding force is the agreement of the states, which gives legal force not only to a separate treaty but also to international law as a whole. Imperative nature is endowed with norms-principles, contractual norms, statutory provisions, and customary rules of conduct. However, in certain cases, international organizations may adopt resolutions binding on states, such as those of the UN General Assembly and the UN Security Council on peace, cooperation, security, and disarmament, adopted in full compliance with the UN Charter.

Taking into account the peculiarities of international criminal law, its sources, and methods of their formation, the legally binding force of norms in the field of illegal international relations is determined by compliance with the norms provided by the system of international legal sanctions.

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STUDY OF THE UKRAINIAN MENTALITY' ORIGINS

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Abstract: The article analyzes the Ukrainian mentality in the retrospect and current perspective, investigating it within deep structures of social and individual life practice. Based on the comparison with Western European spiritual path of development, it is shown that individualism as a trait of Ukrainian "soul" is different from western implementation of this concept. The uniqueness of Ukrainian mentality is deep spirituality, conscious feeling of surrounding nature beauty, which is expressed both in artistic practices and in the worldview and attitude to other people. At the same time, social upheavals of 20th century had a significant impact on the transformation of Ukrainian mentality, which is manifested also in the regional context.

Keywords: Ukrainian, Mentality, Spiritual nature, Individualism, Values, Nation.

1 Introduction

The analysis of the latest researches and publications shows the understanding of the importance of studying the mental characteristics of peoples both in the works of researchers of past centuries and contemporaries. Ontologically, mentality appears in the intersubjective space of an individual's communication with the collective that includes him (ethnos or society). It determines the behavioral experience of an individual, the rhythm of his life, being, as it were, a form that is filled by a concrete specific historical content. Addressing the problem of mentality is especially relevant in times of radical social transformations - these are the times Ukraine is currently experiencing. Shifts occurring in society carry both constructive and destructive possibilities. Their awareness, the opening of new social perspectives, effective social policy require a theoretical analysis of the problem of mentality and, above all, its representation in social formations. This will not only contribute to the final overcoming of outdated stereotypes of spiritual life and social behavior, but will also serve as an impetus for the activation of the processes of building Ukrainian statehood, the formation of civic national consciousness. The history of the Ukrainian mentality is the history of a culture that, in terms of its originality, stands next to the most developed and original cultures of the nations of the world. The story of the mighty spirit, will, perseverance, and hard work of people whose creative nature asserts itself even in the most unfavorable political, economic, and sociocultural conditions, today needs recognizing and comprehension in a global scale.

2 Method

Researchers of different epochs and philosophical directions were engaged in the study of issues of mentality and the influence of mental features on the worldview. Among them, H. Hegel, V. Wundt, S. Montesquieu, E. Durkheim, D. Hum. M. Blok, J. le Hoff examined the relationship between the historical epoch and mental constructs. Both Russian (N. Berdyaev, N. Danylevsky, N. Lossky) and Ukrainian philosophers (P. Kulish, I. Nechuy-Levytskyi, A. Potebnia, P. Yurkevich, D. Chyzhevskyi, I. Myrchuk, A. Bychko, S. Krymsky, G. Horak, V. Gorsky, V. Shinkaruk, V. Yaroshovets, T. Getalo, Ya. Hnatyuk, N. Kornienko, I. Kresyna, V. Popov, O. Rudakevich, M. Skrynnyk, A. Sokyrko, etc.) were investigating the essence of mentality.

We will consider mentality as a known "psychological equipment" of representatives of ethnoculture, which allows consciousness to integrate a chaotic flow of various impressions into a holistic worldview. It ultimately determines the behavior of a person, social group, society, as a result of which the subjective perspective of social dynamics is organically included in the objective historical process.

At the same time, the "image of the world" that permeates the psyche, which determines world perception and world understanding, and, consequently, the strength of the impulse of creative energy and its direction, cannot be reduced to a system of thoughts clearly reflected by consciousness. It is 'set' at the subconscious level, which forms the world of imagination, as well as deep models of automated reactions on the inherited moral-ethical and value basis. The implicit nature of such automatisms of consciousness makes them especially durable and, in fact, ineradicable. They go far beyond material and class interests and often turn out to be derived from life orientations psychologically set by traditions that are transmitted from generation to generation through language, religion, upbringing, and the example of others. Because of this, mental attitudes of all levels – from ideological and theoretical to everyday emotional and subconscious – should become an integral component of the structure of historical explanation.

3 Results and Discussion

Modern researchers do not agree on the definition of typical signs inherent in the Ukrainian mentality. Scientists associate the features of the national character with nature (atheism), note the priority of individualism over collectivism, emotionality over rationalism (cordocentrism), idealism, egalitarianism ("balance" as a principle of life), ambivalence (contradiction) of the inner world, religiosity, or spirituality, as well as some other distinguishing features that at different times created barriers on the Ukraine' way to Europe [1, 3, 12]. In the 20s of the 20th century, a dual image of Ukraine was created: on the one hand, its "Europeanism", on the other - belonging to the "Turkic civilization" (within Russia). As R. Dodonov rightly points out, "having entered the Eurasian space as a European community, Ukraine, three centuries later, is trying to enter Europe as a Eurasian community" [4, p. 242–243].

The concepts of cordocentrism are presented in the works of Ukrainian scientists of the 20th and 21st centuries by A. Bychko, I. Bychko, I. Valyavko, S. Grabovsky, R. Dodonova, E. Kaluzhny, O. Kulchytskyi, I. LysnyakRudnytskyi, I. Myrchuk, V. Tabachkovsky, Yu. Fediv, A. Shmorgun, R. Chopyk, S. Yarmus and others. Some of them emphasize that it is in the "philosophy of the heart" that the specifics of the Ukrainian worldview, the main features of the national psychology and perspectives, consonant with the Western European mentality, are revealed. In particular, D. Buchynsky considered Ukrainian cordocentrism as the only philosophy of the people, calling T. Shevchenko a "philosopher of the heart" [20].

Today, Ukrainian science is dominated by the hypothesis that Ukraine originally (from the time of Kievan Rus (10th–12th century) and up to the 17th century) was part of Europe, whose kings considered it an honor to be related to Kievan princes (Yaroslav the Wise was even called the "father-in-law of Europe"). Only the Pereyaslav Rada put an end to on the European orientation and returned Ukraine to the "Asian" Russia. Europe is not only a peninsula of the Eurasian landmass, "it is a family of nations" with a common cultural and social heritage [14]. According to I. Bychko, Ukraine is a European country, since the reign of Peter I and the striving for "Europeanization", Russia began to "speculate on the fact of its possession of Ukrainian territory, appropriating Ukrainian history" [6].

In our opinion, the Ukrainian ethnic group has mental characteristics that are similar to European ethnic groups. First of all, it is about the implementation of the universal principle, which is reflected in European languages, into life: Latin: "le devoir avant tout", German: "leben und leben lassen", Russian: "live [yourself] and let others live" etc. Researcher R. Dodonov singles out three main components of mental similarity between Ukrainian and European peoples [4]. This is, first of all, the presence of the above mentioned cordocentrist principle, which, being the main one in the Ukrainian mentality, is reflected in Western culture. The sources of the cordocentrist idea are Plato's anamnesis and the Holy Scriptures, in which the heart is a

peculiar emotional and ethical center of the human spirit, a moral and practical representative of the "inner" (secret) human being.

Secondly, the consonance of mentalities is expressed in the so-called "baroque consciousness". Baroque culture in Ukraine covers the second half of the 17th and 18th centuries and manifests itself mainly in painting, literature and, especially, architecture. Deeply reflecting the worldview mentality of the Ukrainian people, in particular, its advanced part - the Cossacks as the bearer of a new artistic taste (hence the second name – "Cossack Baroque") - it appeared a century later than the European one and developed under the influence of its own national traditions.

Meanwhile, no palette of opinions can reflect all the diversity of national self-expression, since the ethnopsyche is exposed to various influences, and in one national culture, various philosophical ideas and tendencies, sometimes even opposing ones, can coexist simultaneously. In this regard, it should be emphasized that the specifics of the Ukrainian mentality can be considered, first of all, with a clear spiritual and civilizational self-identification, with the awareness of the fundamental difference in the psychological regulations of the life activity of the Catholic-Protestant West and the Orthodox East within the framework of a single macro-Christian socio-cultural integrity. The sociogenetics of the East and the spirituality corresponding to it form a motivation for life that differs from the West. The spirituality of Orthodoxy had a huge impact on the Ukrainian mentality. The spirituality of the Orthodox East is organically connected with the emotional character, the "cordocentricity" of the Slavic soul, which relatively lowers the role of the rational-volitional component and increases the importance of reflection in the corresponding manifestations of life [22]. Such an "irrational" attitude to objective reality does not focus on a pragmatist-utilitarian transformation of it, but rather on its interiorization, turning it into an ingredient of the internal microcosm [8]. Hence the high Ukrainian emotionality, sensitivity and lyricism, manifested, in particular, in the aestheticism of folk life and rituals, in the artistry of character, in the famous song arts, in a peculiar soft humor, and so on.

In the geopsychic aspect, "feeling" the wave-like softness of the forest-steppe or the boundless steppe spaces as a "movement into infinity" contributed to the development of contemplative attitudes colored by Platonic "Eros" - love for the absolute [10]. In addition, from a socio-psychological point of view, one should bear in mind the special propensity of Ukrainians to create small social groups-communities based on sensory and emotional closeness (as opposed to large social associations - unions, with a common "foundation" of goals and objectives). These communities are characterized by reflexive attitudes focused on self-immersion and self-knowledge. This social phenomenon of the "small community" was a prerequisite for the formation of the well-known individualistic psychology of Ukrainians [2, 4, 11, 20]. In general, individualism, which corresponds to the individual form of self-determination, is a positive phenomenon. It acts as a prerequisite for the emergence of a subject-personality, which, interiorizing the social and communicative base, is capable of consciously building a civil society in the traditions of the European path of development. This individualism dates back to deep antiquity, to the socio-economic system of the ancient Slavs, which was based on the economic and social autarky of individual clan households united in communities, which, in turn, were part of the tribes and united tribes (for example, the tribal principalities of the pre-state period of Kyiv Russians). The settlement of clans in the forest-steppe and forest landscapes formed in the current territory of Ukraine a pan-European type of householder-proprietor, who acted as the subject of social and political relations. In difficult life vicissitudes, relying on himself and his family members, he simultaneously knew how to respect the rights, honor, and dignity of every member of society.

Some authors highlight special characteristics of the Ukrainian mentality, conditionally dividing them into three components. Namely, the content of these components represents the nature of the Ukrainian "soul". Among them, the following ones should be attributed [5]:

1. Individualism.
2. Emotionality.
3. Spirituality.

Most researchers believe that individualism can be considered one of the dominant qualities of the Ukrainian mentality. The founder of this characteristic is M. Kostomarov, who in the article "Two Russian nationalities" wrote that along with other features of Ukrainians and Great Russians, he distinguishes that in the mentality of Russians, collectivism (God and the king) dominates over the individual, and the Ukrainian values the individual more than communality [7]. The quality of Ukrainian individualism is also referred to by the author of the book "Bread Europe", Hesen Tilman. He is convinced: "every Ukrainian house, no matter how small it is, is surrounded by a fence - a symbol of that individualism, love for the home hearth and the land, which is the characteristic root of the Ukrainian temperament" [18].

Truly individualistic ideas are revealed by I. Franko. If to talk about the priority directions of the development of society, this thinker singled out individualism and socialism, and these were not the extremes at which the position of some particular individual is absolutized. On the contrary, the philosopher saw sense in the equal presentation of both an individual person and an entire nation. Anarchic individualism, as such, was absent in his ideas, since in his views there was room for statehood, namely - for a fraternal federation of nations. It is significant that the public and aesthetic ideal of I. Franko is an international man - a man who is humane and tolerant of other nations, but with a clear idea of his own national identity.

The trait of mental individualism of Ukrainians was historically formed on the basis of economic individualism. Namely, it was expressed in the form of private ownership and use of land. Free landowners have existed since the time of the principalities and Cossacks, and even then the psychology of the private individual dominated the consciousness of the Ukrainian owner [17].

For the sake of objectivity, it is necessary to mention that individualism is characteristic not only of a Ukrainian, but also to a greater degree it is characteristic of a Western European. Perhaps a Western European is even more individualistic than a Ukrainian. Therefore, there are interesting questions here, namely, the issue of Ukrainian individualism in comparison with the understanding of Western Europeanism.

Individualism in the consciousness of a Western European is, first of all, a concentration of strength and energy, all natural possibilities and resources aimed at achieving one's own, individual success, and necessarily in a legitimate and honest manner. The achieved result should be not only large-scale, but also socially useful, significant for society. At the same time, the European is completely abstracted from other people's problems and obstacles, but only concentrated on his personal path to self-realization and achievement of the modeled goal [13, 16]. However, in the Ukrainian representation of individualism, there are other, different characteristics. Ukrainian individualism is self-realization within the limits of a local individual world, which he created independently. At the same time, the achieved labor results are sufficient to satisfy the needs of the individual himself. A Ukrainian protects himself and his individual "world" from external 'irritants', but at the same time, he always remains open and accessible to other people, and is never indifferent to other people's problems [24]. The attitude of Ukrainians to the land served as an impetus for the development and formation of such mental qualities as: hard work, economy, hospitality, openness, etc.

The next characteristic of the Ukrainian mentality, as already mentioned above, is emotionality, the emotional principle that prevails over rationality. The emotionality of the Ukrainian character acts as a complementary component of the traits of Ukrainian individualism. This is due to the fact that this feature

of the Ukrainian mentality reflects the attitude towards the surrounding individuals and peoples, through the prism of rooted individualism and developed internal values/beliefs. Such a trait of mentality is characteristic of all Slavic peoples; however, each of them has its own peculiarities and characteristics. For example, the emotionality of Russians is expressed mainly in external forms - arbitrariness, rebellion, robbery [1]. The emotionality of Ukrainians is a concentration on the inner emotional and sensitive world. I. Bychko speaks about this in the following way: "A specific feature of the Ukrainian mentality is the focus on the inner emotional and sensual world of a person, which is dominated not by cold rational reason, but by the passionate appeal of the heart - in this connection, they speak of the cardiocentrism of the Ukrainian mentality" [2, p. 35].

In turn, the spirituality of the Ukrainian character, to a greater extent, is revealed in relation to religion and the church. In the life of Ukrainians, the religious aspect throughout history was always dominant and determined the specifics of the Ukrainian mentality. Even before the emergence of Christianity, the population of Ukraine formed a complete system of religious ideas about the environment, nature, and people. The religiosity of Ukrainians and the religiosity of other nations have a fundamental difference. A Ukrainian in his religious life confesses moral experiences, seeks inner communion with God, tries to enter the depth of faith, understand its essence. External piety, formalism of rituals, philosophizing on the topic of faith are not characteristic of him. Religiosity is associated with a predisposition to idealization, which is characteristic of the psychological state of the Ukrainian soul. Such an ability manifests itself in the idealization of views on the nation as something sublime that seeks ways to manifest itself through the efforts of the 'chosen ones' (national heroes, intelligentsia, etc.). Such idealization is based on a tendency to disconnect between dreams and reality, which implies the belief of Ukrainians in a bright future and well-deserved happiness based on a long-term wait for this result.

Since ancient times, the dominance of agricultural culture was associated with the cult of the "good mother" - the earth. Women's "protective" principle received a "second wind" in the times of the Cossacks, when not only the economy was in the hands of women, but often also security. Therefore, one of the eternal values remained forever in the Ukrainian mentality - the feminine principle, which is transformed into the principle of antheism [21, 23]. Antheism is a 'mandatory' component of the Ukrainian mentality, one of the main characteristics of the Ukrainian worldview, which consists in exalting the image of nature and, especially, Mother Earth. The land, being a means of existence and survival, caused a careful attitude towards it. "Ukrainian people have always had a direct love and care for the land, which are connected with the attitude to work, with the idea of well-being, rationality, decency, national ethics, etc." [4, p. 310]. The fruits of the earth and skillful farmers were given the highest respect and appreciation: it is they who are presented as aesthetic ideals for ordinary people.

Since the 16th century, the Ukrainian mentality has been focused on pan-European values related to the concepts of the Enlightenment and the reproduction in the ideals of the "man of the universe", which are inextricably linked to the Cossacks and the struggle for the establishment of own statehood. The successive destruction of Ukraine's national independence, the absorption of intellectual potential by the enslaving states, contributed to the development of an orientation towards national creativity. In this context, such a notable feature of the Ukrainian mentality as poeticism, the inner content of which is individualism, is manifested. The latter is manifested in behavior that is characterized by a sharp rejection of despotism, absolute monarchical power, and striving to the idea of equality and respect for each individual being. Such a position forms a certain polyphonic nature of the Ukrainian mentality, dialogicity in cultural and everyday communication and delving into the inner person, the world of subconscious, or rather superconscious, feelings and experiences. At the same time, the existential worldview is articulated. The "inner man" was connected with

present-day experiences and was not oriented towards political, state affairs, especially since this state had been hostile, alien to the person for centuries. This concept is also supported by the fact that the Ukrainian mentality is oriented towards a complex interweaving of borderline values between the Occidental (Western) and Oriental (Eastern) worlds. At the same time, the poetic and artistic objectification of mentality is aimed at the acute emotional experience of today's life, the priority of the "heart" over the "head", which is expressed in such a trait as cordocentrism.

The executive nature of the aesthetic ideal in its essence combines the aesthetic and ethical principles. The combination of these two components highlights cordocentrism as the feature of the mentality of Ukrainians. Cordocentrism is not only a paradigm in the philosophical thought of Ukraine, but also a feature that reveals another facet of the Ukrainian mentality. Cordocentrism, as it is known, is one of the leading ideas of Ukrainian philosophical thought, which has been developing over the centuries. In the works of famous Ukrainian philosopher Skovoroda, it crystallized, and in the philosophy of P. Yurkevich it appeared as a theoretical concept. Yurkevich developed the existential-cordocentric ideas of Skovoroda in his "philosophy of the heart". He noted that "in all sacred books and in all inspired writers, the human heart is considered as the center of all bodily and spiritual life of a person, as the most essential organ and seat of all forces, functions, movements, feelings and thoughts of a person with all their directions and shades" [15]. Unlike Skovoroda, Yurkevich relied on the New Testament, using the word "heart" in a figurative sense, as "a bodily change" (stone heart) [9]. Conceptual significance in Yurkevich's theory was acquired by the ideas that spiritual life is born earlier than the light of reason, and knowledge is created as a result of the activity of the soul, and not the mind, as was previously believed. Such an interpretation of the problems of human knowledge helps to understand the spiritual life as an expression of the uniqueness of the human personality. The essence of cordocentrism is that the center of any human thoughts is the heart. The heart is the direction of development, it is also - at the same time - the receptacle of all the essential features of a person. The consciousness of an individual is concentrated, if not entirely and completely, then to a greater extent precisely in the heart: this applies not only to the emotional and motivational-volitional spheres, but also to the cognitive one.

The analysis of the peculiarities of the relationship between man and nature on the territory of Ukraine allows asserting that the specifics of the Ukrainian mentality, the peculiarities of the national psychology of Ukrainians, and the deep foundations of the cordocentric worldview of the people formed over the years are in close connection with the specific features of the Ukrainian landscape, the natural environment of the population of this territory. For a Ukrainian, this is, first of all, organic unity with the natural environment, immersion in nature, inseparability of the micro- and macrocosm.

We consider it necessary to emphasize that mentality determines the life of people in many areas, since it is connected in a special way with both the practical and theoretical aspects of being, although the practical, of course, dominates. The concept of "Ukrainian mentality" fully meets the above characteristics, but its main distinguishing feature is that this concept is narrower than the concept of "mentality", since it concerns many aspects of the life of a Ukrainian person and the development of Ukrainian society. Among the key features of the Ukrainian mentality, according to our views on the previous development of philosophical thought in Ukraine, one should single out antheism, executiveism, cordo-centrism, and individualism. These features were inherent in the period of romanticism and found their logical continuation in the views of subsequent generations of thinkers.

It is interesting to note that on the basis of the study of the Ukrainian mentality according to the method of Hofstede VSM 08, conducted in 2010 as part of the research project "Economic Consciousness of Ukrainian Society in the Period of

Transformational Changes", initiated by of the National Mining University of Ukraine, the dominant values of the population of Ukraine were revealed. The results are quite interesting. It has been determined that Ukrainians are characterized by both low power distance (PDI 22.79) and, surprisingly, insignificant individualism (IDV 31.49), have a negative indicator of masculinity (MAS - 8.67), rather low values of uncertainty avoidance indices (UAI 4.81) and long-term orientation (LTO 4.08). The values of the new indices of the VSM 08 methodology "Indulgence versus restraint" and "Monumentalism" were interpreted. It was determined that for Ukraine the index of tolerance versus restraint (IVR) showed the prevalence of tolerance (36.13). This characterizes the country as a fairly open society, capable of showing high tolerance and positively perceiving changes and foreign economic experience. According to the monumentalism index (MON 9.34), Ukrainians are a proud people who highly value their own dignity and their ethnic difference from other nations [20].

However, one should also take into account the fact that while Ukrainians are genetically identical to their ancestors living in these territories, still certain changes have occurred in the mentality of people over the past hundred years. So, for example, "in the name of a brighter future", the totalitarian regime, through mass repressions, the Holodomor, in just 70 years (although during this time there was a change of more than one generation) formed the "Soviet mentality".

In addition, a large territory gives rise to heterogeneity of mental stereotypes. It can be assumed that the variation of mentality occurs depending on whose sphere of influence a particular territory fell at one time or another. According to the developments of the Institute of Social and Political Psychology of the National Academy of Pedagogical Science of Ukraine, a grouping was carried out according to different mental stereotypes among various territories population. As a result of the study, the following regions were identified: Kyiv, Galicia (Ivano-Frankivsk, Lviv, Ternopil regions), West without Galicia (Volyn, Transcarpathian, Rivne and Chernivtsi regions), Right-Bank Center (Vinnitsa, Zhytomyr, Kyiv, Kirovohrad, Khmelnytsky and Cherkasy regions), South (Odessa, Mykolaiv, Kherson regions), North East (Poltava, Sumy and Chernihiv regions), East without Donbass (Dnepropetrovsk, Zaporozhye, Kharkiv regions), Donbass (Donetsk and Luhansk regions), Crimea (AR of Crimea and Sevastopol).

A feature of the above study was that it covered various segments of the population, and was not based on any one social group. At the same time, it took into account the level of education, the age and sex structure of the population, and due to this, it reflected the value orientations of several generations of Ukrainians. The sample size was 2058 respondents. The study covered all oblasts of Ukraine in five regions of the country in the number of respondents according to the proportion of the population living there. Respondents were people of different education, age, profession and social status, mainly residents of regional and district centers of Ukraine. The sample included 53.9% of men and 46.1% of women, which approximately corresponded to the sex and age structure of the population that had developed at that time in the country [20]. The results obtained during the study made it possible to calculate the ethnometric indicators of Hofstede and identify some regional specifics of Ukraine.

Table 1 below shows the values of Hofstede indicators obtained as a result of a survey in five regions of the country: Central Ukrainian (Kyiv, Chernihiv, Zhytomyr, Cherkasy and Kirovohrad regions - Kiev Polissya); Donetsk-Pridneprovsk (Donetsk, Luhansk, Dnepropetrovsk, Zaporozhye regions); Northeast (Kharkov, Sumy and Poltava regions - Sloboda Ukraine); West Ukrainian (Rivne, Volyn, Vinnitsa, Khmelnytsky, Ternopil, Lviv, Ivano-Frankivsk, Transcarpathian and Chernivtsi regions); Black Sea (Odessa, Nikolaev, Kherson regions and the Autonomous Republic of Crimea).

Table 1: The value of indicators according to the method of Hofstede VSM 08 for Ukraine

Indices	Ukraine	Central Ukrainian	Western Ukrainian	Northeastern	Donetsk-Pridneprovsky	Black Sea
Power distance (PDI)	22.79	24.10	17.94	28.05	25.16	18.69
Individualism (IDV)	31.49	27.89	26.65	46.86	28.49	27.56
Masculinity (MAS)	- 8.67	-3.38	-13.84	-11.99	-8.73	-5.39
Uncertainty avoidance (UAI)	4.81	2.19	-2.90	10.51	8.36	5.88
Long-term orientation (LTO)	4.08	7.92	0.72	-1.00	6.23	6.54
Indulgence vs Restraint (IVR)	36.13	38.27	43.98	31.73	31.88	34.81
Monumentalism (MON)	9.34	11.99	28.75	8.24	-1.62	-0.65

The depth of divergence of basic values between representatives of different regions of Ukraine was determined, namely: the lowest PDI values were revealed for Western Ukraine (17.94) and the Black Sea region (18.69), the highest IDV and UAI values, as well as negative LTO for the North-Eastern region. The most serious deviations in various regions of Ukraine were identified in terms of the MON indicator, where Western Ukraine dominates, while the Donetsk-Pridneprovsky and Black Sea regions have negative values. When analyzing data for individual regions, it was found that only the Dnipropetrovsk region of all those included in these regions has positive MON values.

In modern conditions in Ukrainian society, there are certain mental differences between the regions, which is explained by the fact that the population of different regions of the country formed its mentality under the influence of unequal cultural, natural geographical, economic, and political conditions. The geopolitical factor in the history of Ukraine has always played a decisive role, so it was not surprising that in the formation of its own independent state, namely "regionality" served as a point of systemic tension in the transformation of the system. However, the idea of an independent Ukraine in the 90s of the 20th century ensured public consent and rallied the masses into a fairly powerful force.

The great researcher of national cultures Johann Herder wrote: "Ukraine will someday become a new Hellas. The beautiful slumber of this country, the complaisant disposition of the people, their musical talent, the fertile land, will someday wake up. Out of small tribes, which the ancient Greeks once were, a large cultured nation will rise. Its borders will stretch to the Black Sea, and from there - far into the vast world" [17]. This prophecy refers to the year 1769. At the moment, at least in part, these words have already become a reality. The mentality of Ukrainians is a complex and multi-structural phenomenon that reflects centuries of history. Among the qualities inherent in it, the key ones remain - individualism, emotionality, and spirituality. Namely these criteria, in as much detail as possible, give an idea of the essence of the Ukrainian "soul". Based on this, it should be recognized that the efforts of the state in the current extremely hard and transformational period should be

focused on achieving social consensus, which can only be formed on the basis of values and historical traditions.

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"SILENT INTONATION" AS A COMMUNICATIVE PHENOMENON OF CHAMBER-ENSEMBLE PERFORMANCE

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Abstract: The principle of unity in multifacetedness is the basis of chamber-ensemble performing art and is presented as a diversity that differs as a quantitative/qualitative structure of instrumental compositions, formed based on a combination of different textural-register and timbre-dynamic qualities. Accordingly, the creative personalities, their emotional and psychological state, technological and executive capabilities are also different. It is shown that the formation of a common artistic concept requires the coordination of all components of the ensemble-performance complex. The mechanism of the formation of intonational unity in the ensemble is shown.

Keywords: Silent intonation, The principle of unity, Ensemble, Harmony.

1 Introduction

Performing work in an ensemble is defined by a combination of individual independent voices-soloists and is aimed at conscious harmonization-coordination of complex musical-ensemble interaction to achieve artistic integrity of performance.

The formation of a common artistic concept requires the coordination of all components of the ensemble-performance complex: the general artistic interpretation-performance plan and individual performance tasks of each of the ensemble members; functional-role thematic hierarchy of ensemble parties; personal psychophysical communication of performers - their visual and auditory contact; performance-technological interaction of musicians - manifestations of "silent intonation", gestures in achieving synchronicity of sound; artistic and figurative interaction - verification of strokes, dynamic balance, tempo rhythmic synchronicity; chronotopic harmony of "performance-ensemble space".

Ensemble interaction of instrumental partners is a multi-channel process, which presupposes the establishment of subtle functional connections between artistic thinking with its most important component - the sphere of hearing, on the one hand, and the sphere of game movements - on the other.

Performing gestures represent a leading factor in chronotopic coordination and are used as a means of plastic expression of figurative, logical, and emotional representations that unfold in parallel with musical language. The psychology of stroke-gesture, performing behavior of ensemble members, timbre sensitivity, brought up by the auditory experience of stylistically different patterns of musical expression - all these values are mastered by experience, not only personal but also generalized, theoretically based on professional observations and knowledge.

2 Material and Method

The specificity of chamber intonation is determined by the special orientation of the content that chamber-ensemble music carries. The methodological basis of the research is a systematic approach that underlies the consideration of the ensemble as a complex system of interacting parties. The connection between instrumental and expressive means and their content capabilities is traced using the elements of semantic analysis. Evolution, piano- and instrumental-specific issues are considered from the standpoint of history and theory of performance. The task of identifying patterns in correlation, ensemble parts in compositions of different styles, eras, and genres when comparing both musical material and figurative-expressive characteristics of instruments involves the use of methods of holistic and comparative analysis.

3 Results and Discussion

"Silent intonation" as a semantic dominant performance and ensemble harmony

In studying the problems of ensemble coordination, attention is paid primarily to the individual characteristics of musical sound production on different instruments, as the performance pronunciation-intonation reveals the dialectical unity of thinking of several participants, related to intonational complexity of expression and differentiated personal-instrumental features.

The harmonizing function, which is the basis of ensemble mastery, presupposes such activity in which performance-technological and directing-psychological principles are harmoniously combined, i.e., the practical side of realization of ideas is combined with theoretical - comprehension of the creative act, which P. Florensky [4] defines as "unity of self-consciousness".

The combination of these concepts is basic for B. Asafiev's intonation theory: the figurative-intonational form of thinking appears as "meaningful breathing-pronunciation", which is guided by different types of instrumental breathing-sound-leading and is realized by the activity of human intellect. The specific meaning of intonation, according to the scientist, presupposes the concept of performing energy as a musical movement in its unity with the forces or stimuli that cause and act in it and assumes the concept of shock-phenomenon on which the movement arises and depends on the development of movement energy. Physically, from the outside, the push is a keystroke, a moment of injection, with the inevitable emphasis on what lays the tone of the performance, i.e., the emotional tension of musical intonation [2].

The process of instrumental-ensemble coordination is guided by a qualitative set of possibilities of musical breathing-intonation of the performers and articulatory-timbre properties of the instrumentation, forming ensemble intonation, which attracts to the artistic sphere of ensemble creativity and "silent intonation" - a certain set of performing movements that are immanently (as the embodiment of professional-game actions) and consciously (as the management of the process of ensemble coordination) used by performers.

The performance of a musician, in particular, an ensemble player, is based on three factors - auditory, temporal, and motor sensations, so the ability to reproduce subtle, precise movements is the same indicator of professional ability as developed musical hearing, memory, and sense of rhythm.

As a performance-instrumental one, intonation distinguishes each of the members of the ensemble; thus, different ones are the performance "manners", "silent intonation" - an individual system of gestures used for artistic communication, and on a conscious and subconscious level in one way or another implemented by all members of the ensemble. For perfect performance ensemble interaction, it is extremely important that all components of this psychophysical complex are in a state of harmonious balance, because performance gestures aimed at achieving a certain technical and sound result on a particular instrument ("sound will", according to K. Martinsen, 1966 [6]), in turn, performs a psychological mission, involving ensemble partners in the search for appropriate performance actions-tools in the implementation of a common artistic idea.

The use of the terms "mental" and "physical" in application to music and performance suggests that the first of them covers a wide range of phenomena (thinking, emotional experiences, perceptions, and ideas) associated with the search for an artistic image, i.e., the ideal model of future ensemble performance. Therefore, the mental acts as a carrier of artistic intentions of the

performers. The second component - motility - is an expression of these intentions in specialized instrumental and performance actions that are part of the material and technological basis of performance. Undoubtedly, artistic comprehension performs leading functions concerning the technological side of the creative process, but this does not mean the passivity and complete subordination of the latter: in search of artistic image, the performer uses certain technical "samples" laid down in his "instrumental base" and invented technical tool does not act regardless of the artistic image.

From our point of view, determining the psychophysical principles of ensemble communication, we can draw certain analogies with acting in a play, when each gesture and each cue (its intonation, rhythm, timbre, dynamics) of the characters involved depends on the overall tone of verbal material.

Prominent dramatic actress M. Yermolova [15], answering questions that affect her understanding of the role - psychological, plastic, or verbal indicators - noted that the search for an idea of a character arises from his posture, movements, gestures; even a purely "visual" image contains elements of plasticity and expression that become the "starting point" for finding one's own gestures and intonations which define the actor's image. Without such interaction, it is impossible to feel an integral part of the creative action of the play.

According to the director and teacher K. Stanislavsky, finding a certain image, awareness of own role in the play should be effective to involve a person in the process of understanding the whole, with his self-esteem, with his understanding of others, with his deep feelings. "Physical actions" for the director were not an end in themselves, but a way to enter the personal world of the character, which allowed to influence feelings, to evoke emotions that correspond to the plot development: "We are not interested in the action itself, but the logic of action. With the help of simple physical actions, you can get the logic of feeling the role. Then you will have a line of physical activity and, in parallel with it, the inner line of your feeling, which justifies these actions - you have moved from feeling to action" [13]:

At one time, the search for ways to improve ensemble interaction led the German scientist, composer, conductor Mattheson (1991) to the idea to endow the performer-clavier with conducting principles, emphasizing that, since the clavier is the leading instrument of the era, the clavier performer must not only master it but also know the features of all instruments involved in the ensemble [7]. The main task of the clavier performer in the process of ensemble performance should be "tact", and this should be done flexibly enough to allow other instrumentalists to demonstrate their skills. As the author admits, a small nod of the head or a simple pointing of the eyes, or a light gesture is enough to lead the ensemble to adjust the performers to the desired musical effect.

This vision of ensemble psychophysical interaction, to some extent, echoes Pythagoras' teaching on eurythmy, which determines a person's ability to find the right rhythm in all life situations - not only in singing, dancing, and playing musical instruments but also in thoughts, actions, conversations. Namely, Pythagoras started the tradition of comparing public life with both the musical system and the orchestra, in which each person, like the instruments of the orchestra, has a role to play. Later, finding the right rhythm in ethics was formed into a common and fairly broad concept of tact.

"Silent intonation" acquires special significance in the performance-ensemble artistic chronotope, actualizing artistic information in technological and instrumental manifestations: musicians-ensemblists much more often than in solo performance, turn to sign language to explain their creative intentions, in particular, in regulating the synchronicity of entry and the end of phrases, in dynamic and agogic-tempo shifts.

The synchronicity of the starting performance of all participants, especially at the beginning of the work, when the tempo is not yet set, is impossible without showing one of the performers -

barely noticeable nod, bow, wrist "breath" of the pianist forms a special gesture, the so-called aufact (German – overtact), which, presenting at the planned pace, involves all participants in the required tone of a performance and determines the "starting point" of the ensemble sound. Here, to a certain extent, the conductor's functions are performed: gesture, facial expressions, and gaze adjust the ensemble-partners to a single "artistic wave" (tempo rhythmic, timbre-articulation, dynamic-agogic) for reproduction of the collective-ensemble sound.

For experienced performers, these movements are almost invisible ("barely"), they are even difficult to be called full-fledged movements, because they are inseparable from the performing style (or performing "manners") of the instrumentalist, but are captured by ensemble members and connect them to a certain "emotional flow".

Apparently, this is "barely" which K. Stanislavsky (1983) [14] spoke of as a decisive factor in art, and the definition of that degree - a little louder, quieter, slower, more fun, gentler, etc. - should be controlled by the created in "live" musical-performing chronotope by ensemble aesthetics of sound.

O. Serov held a similar opinion, noting that in the performance, one barely noticeable accent, one barely perceptible change in movement opens "whole new horizons", which largely depends on the talent of the conductor, who instantly, with a magnetic wave, at a glance, is able to convey the idea to instrumentalists and make them obedient to his own will.

Ensemble-performance gestures not only regulate the course of the playing process in the synchronicity of sound but perceptually "inform" about the further development of the musical plot, which requires coordination-awareness of the role of each instrumental part in the projection on the artistic integrity of performance.

Although the difference between performing gestures and conducting is quite obvious, there are common psychological factors that affect both chamber and ensemble performers and orchestral instrumentalists: the personality traits of the leader, his style of communication with performers are to some extent influenced by their manner of playing. Experienced conductors are well aware of this, noting that during conducting, "spiritual currents" arise between them and the musicians, through which an invisible connection is established.

The American conductor Ormandi believes that the conductor's influence on the orchestra is similar to the hypnotic effect on the minds of musicians, who, as if enchanted, follow all the instructions of the conductor's gesture. Extremely important in this process is eye contact: "… eyes are omnipotent – this is a means of constant communication between the leader and the musicians, it is a mirror that reproduces every thought and emotion…" [10].

The tasks of the leader of the orchestra and ensemble, despite the differences in functional and role principles, are quite similar: leading an ensemble group (of any number) can only be done by a professionally authoritative musician who can evoke the necessary emotional tone in the ensemble not only by gestures or looks but also by own performance. The relevance and speed of reaction of other performers are determined by the degree of their confidence in the proposed interpretation version.

Confirmation of this opinion is found in D. Oistrakh [9], who, turning to the conductor's activity, concluded that the conductor can do only what the orchestra likes - only the interpretation that corresponds to the artistic aspirations of the team, and this is the answer to the question why one conductor succeeds and another does not.

These words rightly indicate the relationship in any ensemble communication: performers can respond to those "messages" that correspond to their artistic concept, rejecting the accidental ones, caused by changes in the performing and listening space, the peculiarities of the concert hall, and so on.

Thus, ensemble performance is a process of creative communication and the formation of special psychologically comfortable performing relationships and conditions for the implementation of ensemble interpretation, which in ensemble performance is a set of gestures-signs that are intuitively captured by all participants and transformed into their own performance artistic actions.

Ensemble instrumentalism as a system of creative interaction

Music is a specific product of artistic thinking in sound images. The genetic basis of this activity is the direct and inverse relationship between the biophysical manifestations of a human and his spiritual, primarily emotional and figurative, activity. "The culturogenesis of this connection is rooted in socio-historical practice aimed at artistic and figurative rethinking of natural (voices of nature) and artificial (instrumental) sounds of the real world" [5].

Since all types of human activity - practical, theoretical, sacred (according to P. Florensky [4]) - have their own set of objects (tools), the qualitative composition and application of these tools (schemes of their use, level of ownership, impact on the process and result in human activity) determine the scope of the concept of instrumentalism. Musical instrumentalism can be considered the reproduction of musical and artistic ideas in instrumental art. The ensemble as a genetic feature of musical performance, which involves a dialogue between human and instrument, even in solo performance, is the basis of the concept of musical instrumentalism.

In ensemble performance, the concept of musical instrumentalism becomes multilevel, as the subject-material base of instrumental composition (objects of human activity) expands, and the process of "embodiment of the idea" is complicated by the need to coordinate theoretical activities by all participants of the joint creative act.

Thus, the meaning of the concept of ensemble instrumentalism can be a plurality of subject-instrumental characteristics of the ensemble and the ideal psychological characteristics of its members, which in the process of co-creation form a new quality-set of instrumental and artistic expression.

The specific properties of ensemble instrumentalism are determined primarily by organological characteristics - musical and instrumental qualities of a particular ensemble composition, as instrumentally expressed musical thought requires the material and physical basis of reproduction (on certain instruments). To paraphrase M. Bakhtin, we can say that every musical thought in the ensemble, reproduced instrumentally, is a reaction to the "performing thought" of the ensemble partner, which stimulates the emergence of new instrumental and artistic ideas and affects the overall effect of ensemble performance. Since ensemble music performance, like any joint creative act, has a wide range of mobile elements that require some correction depending on the conditions of performance - acoustic and spatial characteristics of the premises, performance capabilities of ensemble partners, psychological compatibility, etc. - a stable element in this process should be an instrumental factor that carries information about certain technical and performance qualities of each partner and the ensemble as a whole.

An important factor in the field of ensemble creativity is the technological and expressive capabilities of the instruments, which act as material and physical indicators of the ensemble instruments and determine their acoustic, timbre, dynamic, articulatory properties. Each instrument of the ensemble brings to the overall ensemble palette not only purely physical indicators of the instrument - in the form, methods of sound production, sound, but all the socio-historical and expressive-aesthetic potential inherent in textural and timbre instrumental features, national specifics, professional specifics. In turn, each instrument, having its own instrumental characteristics, which depend on its design features, timbre qualities, as well as artistic and technological means of expression, in the ensemble is subject to the laws of total expression for the artistic

embodiment of the author's idea, which leads to the new sound quality of each instrument and the ensemble as a whole.

At one time, Plato was quite skeptical about the various instrumental combinations; in particular, in his opinion, multi-stringed songs and melodies are not needed and all "multi-stringed and multi-harmonic instruments" should be abandoned, resulting in the fact that for the city, most suitable ones are lyre and cipher, and for shepherds in the field - syrinx, separately warning against mixing the voices of men and women, slaves and "nobles", people and animals, noise and tones. Music without words was not considered an art by the philosopher at all: the struggle for the purity of musical art was especially sharply reflected in Plato's speeches against instrumental music as a new, independent art form [11, 12].

Each musical instrument in the ensemble is a living part of the artistic whole, which can contribute to the creation of a certain musical image. The combination of instrumental components of the ensemble (acoustic, technological, articulatory, timbre, dynamic, etc.) in different possible variants gives different artistic results. This variability is analogous to painting, where the process of mixing multicolored paints will never give the same shade of color twice - even a slight deviation will inevitably lead to a different artistic effect (or, according to the philosophical statement, "it is impossible to enter the same river twice").

When studying the problems of instrumental and ensemble performance, attention is first of all paid to the specifics of sound formation on various instruments, because it is an indicator of instrumental musical breathing - the beginning and measurement of any musical manifestation. Analyzing the performing arts of musicians of different instrumental specializations, we use the capacious Asafiev concept of "performing breathing", transferred from the sphere of vocal intonation to the instrumental sphere. According to Asafyev, individual features of breathing are one of the main criteria of professional culture, talent, and skill of the performer.

Breathing as a unit of comprehension manifests itself at the elementary level of intonation, on the scale of interval sound combinations that sound in the space between tones; it is felt by the performer as three-dimensional, "living" in its elasticity and causing "respiratory-muscular" effort due to one or another degree of intonation tension. But the role of instrumental-musical "breathing" is especially significant in the projection on large-scale constructions, whole sections of the form, which are voiced by a single, continuous impulse caused by the end-to-end components of musical thought. In the foreground, there is the function of motion control – "rhythm-controlling" role of respiration, the organization of the internal unity of the tempo rhythmic process in the relationship and interdependence of all its components: fractional pulsation, rhythmic-constructive side, increases and decreases, distribution of sonority on large "spaces" of the form. Finally, breathing determines the emotional tone of the performance, its "nerve" and "degree", the extent of psychological saturation of music at different stages of the performance process. "Establishing in tone", in sound tension, i.e., intonation is inherent in all instruments, but in each, it is qualitatively special" [2].

Each musical instrument has specific features of sound - percussion, tonicity, depth, characteristic timbre, singing, pedaling, elongation, residualness, etc. – "mutual borrowing" of these features and techniques of sound production enriches the field of expressive instruments. "On this basis, the content of the techniques of embodying the musical content is deepened, the performing skills of the musician are successfully formed. Its technological apperception is expanding; the correspondence of figurative representation and auditory-motor procedural prevention of the real embodiment of the interpretive idea in a concrete sound improves" [3].

The sound of each instrument has four physical qualities: pitch, duration, volume, and timbre. While the pitch and duration ratios have a clear definition and dimensionality, because pitch,

texture-space (mood, melody, harmony, polyphony) and temporal (rhythm, tempo, temporal proportion of parts) factors are the basis of the internal organization of music and laid down by the composer in the text of the musical work, volume and timbre are relatively free, transitional concepts - they largely depend on the material component of the instruments and the specific ensemble combination, but at the same time are necessarily included in the indicators of spatial and temporal conditions of musical performance.

4 Conclusion

In combination of intonation-musical breathing of instruments with different sound production techniques - string, wind, keyboard - there are certain problems in articulatory-dynamic synchronization of sound microstructures, as specific strokes indicate the way of beginning, continuation, and end of sound production; however, string and wind instruments are endowed with the ability to change the tonal-dynamic tension within a single sound, while the piano carcass is associated with the attack of the beginning of the sound and the natural effect of attenuation at the end. Eliminating such differences at the vertical level of microstructure in the sound of instrumental-ensemble combinations requires intonation readiness and ability of all participants of the creative process to "get used" to the sonority of instruments with different ways of musical breathing-sound formation, which is the most important and difficult problem in practical performance.

The subject-instrumental characteristics of the ensemble composition are determined by the sound source, the quality of which is influenced by the properties of the instrument material, their mass, spatial arrangement, oscillations, and interrelation. To become a material, sound, according to M. Aranovsky [1], must acquire the most important quality – plasticity, i.e., the potential ability to become a form, to obtain a particular configuration.

However, from our point of view, only the "performing touch" makes the physical material spiritual and the timbre unique, differing in color even from the same instrument: the phenomenon is well known to pianists when the piano sounds (i.e., lives) or does not sound (i.e., reproduces the action of mechanics); in the artistic and semantic content of instrumental sound, not only the professional and performing level of the musician is manifested, but his social and intellectual culture, which forms a unique individual-performing manner of sound presentation.

Artistic and aesthetic requirements for the instrumental and sound side of ensemble performance are determined primarily by the polytembral sound, the degree and nature of which depends on the composition of instruments in a particular ensemble because the sound of different timbre instruments forms a new "sound synthesis", which contributes to a wide variety timbre and sound colors.

The genre sphere of the chamber ensemble has a voluminous artistic and instrumental potential, in which each of the instruments has its own "scale" of acoustic, technological, articulatory, dynamic qualities, due to the sensory-material properties of instruments and the ideal result deriving from the culture of "sound" performers"-ensemblers and forms a special collective instrumentality - timbre-acoustic quality of a particular ensemble, united by dialogic-polylogical interaction of performers-participants in the process of reproduction of the author's idea.
The organological paradigm of chamber and ensemble music formation developed over a long period, the instruments became part of ensemble compositions, having passed a long historical path of changes in aesthetic criteria of ensemble-sound qualities: in contrast to baroque tendencies of instrumental-timbre "universality" of multiple semantic problems (author's definitions of alternative replacement of instruments in ensemble works), in the classicist and romantic periods, organological features become essential for the independence of artistic and

instrumental image and articulatory "performing set" characteristic of a particular instrument (group of instruments), although it remains certain composer's tradition of giving the instrumental image a "double" meaning (ad libitum of performance of the part by instruments with different methods of sound production). The importance of the instrumental factor in the artistic and semantic concept of the ensemble work increased significantly in the 20th - early 21st centuries: creative experiments of contemporary artists in search of new sounds completely changed the traditional ideas about the stability of instrumental compositions and natural organological properties of instruments.

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CHAMBER AND VOCAL MUSIC IN THE CREATIVE WORK OF A. SCHNITTKE: FROM ARTISTIC IMAGERY TO THE PRINCIPLES OF CYCLIZATION

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Abstract: Based on the musical-historical analysis, the article shows that Alfred Schnittke occupis a special place in the history of Russian music of the Soviet period. Being a composer of the sixties, he became one of the most performed representatives of the Soviet musical culture of the second half of the 20th century in the world. The object of the study is the composer's chamber-vocal heritage in all the variety of text sources available to modern science. Artistic-stylistic and performing characteristics of A. Schnittke's chamber-vocal music are considered. The novelty of the study is the investigation of issues related to the specific methods of performing Schnittke's chamber-vocal opuses.

Keywords: Artistic integrity, Artistic form, Artistic image, Chamber vocal creativity, Cyclicality, Musical language, Poetic word.

1 Introduction

In the history of musical culture of the 20th century, one of the brightest representatives of the avant-garde movement of the "Soviet" period, which had a significant impact on the work of many composers of the second half of the 20th and the beginning of the 21st centuries, is Alfred Harriyovych Schnittke. The search for new forms and ways of musical art existence, new musical and linguistic manifestations was carried out in difficult socio-cultural and historical conditions of the "transitional era" - the era of "thaw". This period was marked by global changes in the moral self-awareness of society, which was reflected in the work of many cultural figures of that time - composers, writers, theater actors, artists, etc.

Despite decades of cultivated and strictly regulated ideological orientations of artistic activity, the work of sixties' composers demonstrates a return to the circle of the most relevant themes - the theme of moral reflection, the search for truth, the clash of good and evil, spiritual growth, philosophical understanding of reality, which becomes a continuation and development of previously existing traditions of Russian culture, that were so 'diligently' eradicated in the era of the supremacy of "social realism" aesthetics.

The latest achievements in the field of aesthetics and musicology enrich the available musical research tools. The concept of the new "aesthetic consciousness" makes it possible to more clearly interpret the essence of the musical phenomena of the selected period, since namely the aesthetic argument, as it is known, is quite weighty and strong in relation to the musical object. In this aspect, it will be interesting to observe the process of changing aesthetic consciousness at the beginning of the 20th century and trace the extent to which the Russian/Soviet musical avant-garde turned out to be in harmony with the aesthetic categories of classics and non-classics.

2 Material and Method

In the process of research, various methods of musicological analysis were used: from a holistic approach, interpreting the composition in the unity of its content and form, to phenomenological - researching the semantic layers of the text, analyzing its intertextual connections. The approach to the topic was determined from the standpoint of the context of the composer's individual style and the era to which he belongs.

The main research methods included the following:

- Comparative-historical method, which made it possible to trace the features of the development of avant-garde and postmodern tendencies in Russian music in some chronological dynamics;
- Musicological method, with the help of which it became possible to analyze the language, problems and poetics of works classified as avant-garde and postmodernism;
- A method of interpretation that made it possible to perceive and understand the phenomena of avant-garde and postmodernism in Russian music;
- An integrative method that enabled using data from various fields of humanitarian knowledge in relation to solving the problems posed in this study.

3 Results and Discussion

The turn of the fifth and sixth decades of the 20th century opened a new stage in the history of Soviet music, associated with significant changes in the political and socio-cultural environment. It was in many ways initiated and stimulated by the decisive changes that took place in the social life of the country. These stunning changes seemed to release the energy that had been stored and accumulated for several decades from the long years of the totalitarian system. After the death of J. Stalin in March 1953, Soviet society began to change quite quickly, one might even say, rapidly.

The speed of this process eloquently testified to the deep crisis of Stalin's empire, especially at the end of his reign. Although it took almost three years for the new official government to express an official opinion about Stalin's rule, it still happened at the 20th Congress of the CPSU (1956). In his report, M. Khrushchev sharply condemned the repressions of Stalin's times; the Stalinist regime's totalitarian war against its own people was henceforth defined as a "violation of socialist legality" and was entirely attributed to the "cult of personality". Hopes about the impossibility of returning to the past grew stronger in society, and changes in aspirations and hopes were most fully and directly expressed in the sphere of artistic creativity, including literature and music.

To some extent, artistic creativity and, more broadly, spiritual life activity were intended to compensate for the lack of real social changes, because liberalization, in fact, did not affect either the economic or the political structure of society, which was still oriented towards "communist values". This was related to the halfness and short-term nature of liberalization, which did not have time and did not manage to take root in the Soviet state.

Although the official authorities have not yet given any comment at that time, the hopes for freedom, initially rather vague, have already found their expression in the first works that appeared after Stalin's death. In the May 1953 issue of Styag magazine, I. Ehrenburg's novel "Thaw" was published for the first time, whose title and general atmosphere gave a name to the entire cultural and historical period. The feeling of freedom was already felt and began to strengthen, thanks to the new works that appeared in this period. Five years later, in 1958, the charges against many outstanding figures of the musical culture of that time were officially dropped with the issuance of a new resolution – "Regarding the correction of errors in the assessment of the operas "Great Friendship", "From the Heart" and "Bohdan Khmelnytskyi"". This supposedly marked the official end of the ten-year existence of the infamous decree of 1948, but the principled attitude to the "struggle against formalism" was reaffirmed, which caused considerable doubts about this decree among many creative people.

In this atmosphere, a new generation of artists of various creative directions, who did not have direct experience of Stalin's times, and therefore were not infected with fear, became the force that contributed to the emergence of new trends in culture. Namely

they carried a powerful charge of vitality and creative energy, the embodiment and manifestations of which, for the first time in a long time, seemingly was not prevented by anything. It became a time of discovery for young poets, who gathered audiences of thousands in stadiums, and for young artists and composers, who for the first time in a long period had the opportunity to enter into creative communication with the world's artistic experience. All this made the feeling of freedom almost limitless for a while, and the scale of changes seemed quite significant.

At this time, there was beginning of sounding not only the works of modern European composers such as Britten, Onegger, Hindemith, Poulenc, Orff, Millau, but also composers of the first third of the 20th century, the neoclassical and late period, whose performance and study were also prohibited - Debussy, Ravel, Stravinsky. Later, in the Soviet chamber concert halls, one could find the inclusion of the works of Messian, Berg, and Webern in the programs of performers. Schoenberg was played almost exclusively by foreign touring artists (however, "Survivor from Warsaw" was performed once as an anti-fascist piece), but all this testified to the extraordinary interest and strong demand from both composers and performers and listeners for the works of the named composers.

However, the desire for new artistic information was so great at that time that the limitations of the concert repertoire were easily overcome in other ways, especially in a professional environment. The emergence of direct personal contacts with foreign musicians in many ways became the outlet that helped many composers and performers when the "thaw" period was over and the pressure on artists from the new government began to increase.

One of the most vivid exponents of the outlook and moods of his generation was Alfred Schnittke, in whose work, as A. Ivashkin pointed out, one can clearly feel "much of what makes up the spiritual atmosphere of the time; various problems perceived by the artist from everywhere are fused and reflected in them. For Schnittke, there is no such thing as "own" and "alien", old and new - just as these concepts did not exist for Joyce, Einstein, Eliot, Stravinsky, who expanded our ideas about the unity of the world and the universal nature of human culture" [4, p.9].

In the European audience, in addition to the great attention to the work of Alfred Schnittke, an interest in many composers of the 1960s arose, but many European researchers who studied the activities of composers of the "Soviet" period (in particular, Frans Sh. Lemer) emphasize that the creative personality of Alfred Schnittke occupies a special place place in world musical culture, because the composer is "the personification of conscience where it seemed that it had no place" [7, p. 9].

Among the literature devoted to the study of the work of A. Schnittke, one should highlight the works of the composer himself, in which he defines the priority directions in the development of the musical culture of his time ("polystylistic tendency in modern music"). The material of the composer's scientific works reflects the artist's own views on the main trends and priority directions in the musical culture of that time, which were of great importance to him and significantly influenced the formation of his own author's style.

In his theoretical studies, Schnittke singles out two techniques, which he calls the "principle of citation" and the "principle of allusion", which have already become the generally accepted musicological terminology. "In the citation, he only differentiates something known (such as the introduction of Bach's chorale in Berg's Violin Concerto) and theoretically introduced for the first time: adaptation - retelling of someone else's musical text in one's own musical language (Stravinsky's "Pulcinella", Shchedrin's "Carmen Suite"), quoting the technique of someone else's style ("Your Faust" Pusser). An important musical concept, called by Schnittke the principle of allusion, is illustrated by an example of Stravinsky's entire work" [6, p. 39-40].

As Schnittke notes, "the principle of citation has long been known and manifests itself in a whole range of techniques - from the

reproduction of stereotypical microelements of the style of another era or another national tradition (melodic intonations, harmonic sequences, cadence formulas) to exact or reworked quotations or pseudo-citations", while "the principle of allusion manifests itself in the subtlest hints and unfulfilled promises at the edge of the quotation - but without going beyond it" [8, p. 327-328].

As the composer points out, the wide use of stylistic hints and allusions in the instrumental theater (Cage, Kagel) or the subtlest fluids of polystylistics in the music of such opposite composers as Boulez and Ligeti, or among the "Soviet" composers - Denisov, Sylvestrov, Gubaidulina, are also indicative [8, p. 329]. The author asks a legitimate question about the difference between general musical associations and special polystylistic associations, and answering his own question, claims that polystylism has become a deliberate technique, a special form of expression.

Polystylistics allows, according to the composer, to significantly expand the circle of expressive means, and the "integration of "low" and "high" styles, "banal" and "refined" becomes possible, that is, a wider musical world and general democratization of style. The subjective passion of the author's statement is reinforced by the documentary objectivity of the musical reality, not only presented individually reflected, but also quoted" [8, p. 330].

Constantly conducting an analytical study of the works of many prominent composers contemporary to him, whose work was previously under a complete prohibition, Schnittke points out that many of them contain collages of quotes, which he perceives as an "apocalyptic reminder of our responsibility for the fate of the world" and a complex of "music documents of different eras", which he compares with documentary film journalism. In addition, thanks to polystylistic moments, "new opportunities arise for the musical and dramatic embodiment of "eternal" problems – "war and peace", "life and death", etc." [8, p. 331]. Therefore, in his opinion, "it would hardly be possible to find as convincing musical means for the artistic expression of the "connection of times" as polystylistics" [8, p. 331].

The activity of composers of the sixties was determined, on the one hand, by the desire for a significant renewal of the musical language and the mastering of technological techniques and artistic principles of composition prohibited by the Soviet ideological censorship, on the other hand - by expanding the possible range of topics that touched on issues of philosophical understanding of the world, the eternal theme of the struggle between good and evil, searching for spiritual landmarks.

Mastering the principles of dodecaphony and serial technique, as well as familiarization with the work and analytical study of the compositional heritage of A. Berg, A. Webern, P. Boulez, L. Nono and many other composers forbidden to be studied in conservatory courses at that time, led to the first "attempt at writing", and later to the active use of the most innovative techniques and methods by sixties composers in their works. Such experiments did not go unnoticed by European and American critics, however, as L. Hakopyan shows, in most cases, despite the positive assessment of the opuses of the "Soviet avant-garde artists" and the clear sympathy for their work, a rather condescending attitude was felt in the assessments of these critics.

In their assessments, the creativity of the representatives of the "Soviet avant-garde" could be regarded as interesting, but largely dependent on a certain model, and, therefore, a secondary phenomenon that cannot be considered as an independent "offshoot of the "great" world avant-garde" that has unique individual features. "For a long time, the foresight of the "big world' was not enough to recognize that the art of these masters is endowed with a deep and completely original metaphysics" [1, p. 29].

In the creative thinking of the composer, the power of the intellect and the depth of the talent revealed a significant and large-scale semantic field of musical and symbolic ideas. S. Slonimskyi wrote about Schnittke: "This is a personality,

extremely deep personality, paradoxically thinking, he thinks deeply, philosophically" [10, p. 186]. E. Barankin and E. Chigareva find the same: "Alfred thought originally, he had a philosophical mindset, and it seemed that he knew absolutely everything" [2, p. 66]; "he was always a thinker looking for answers to the most painful questions ... He was like a vibrating string that subtly responds to the influx of time ... listening to the works of A. Schnittke ... is like living a whole life" [3, p. 194-195].

The composer himself believed that the motivating creative force and generator of creative activity of his thought is doubt, about which he explained – "doubt forces thought to work at the maximum of their intensity. For the artist, namely doubt, dissatisfaction - he may or may not be aware of it - acts as an engine, a catalyst that forces his thoughts, his psyche to work at maximum speed" [11, p. 103]. In this regard, the analytical view of the musical heritage of Schnittke can be presented as endless philosophical searches, painful questions and answers, which took an artistic and sound form. For him, as a thinker, it was natural for the word to surround the sound, continue and concretize it. As V. Kholopova pointed out, "sound without thought is not A. Schnitke".

The semantic content of Schnittke's music is extremely rational. However, the attraction to thoughtfulness and analytical orderliness is always connected in him with inspiration: "intuitive and rational always lend a hand to each other. Inspiration is absolutely inseparable from creativity - and here one must not fall into either hypocrisy or self-deception" [5, p. 64]. The composer, feeling the priority of the rational principle in his work ("the rational is always at hand"), at the same time considered the emotional impulse extremely important and creatively necessary. Schnittke emphasized the inseparability of the categories of sensual and rational, the close interaction of both principles that determine any artistic process, and, therefore, appealed to the concept of "sensual" (from the works of M. Roerich). In the composer's conceptual thinking, both the symbolic aspect and unlimited musical-emotional resources, which reveal the specificity of the content of his music, coexist in the ultimate expression.

The appeal to chamber-vocal genres in the work of Schnittke becomes a permanent feature of his individual authorial style, which is confirmed by the appearance of the first romances written in a traditionalist manner back in the years of his studies at the conservatory, and then, throughout his entire creative biography, the appeal to this genre sphere with special attention to the verbal component of the works, to the exact embodiment of the semantic and emotional embodiment of the literary text in music.

Schnittke scrupulously tries to reproduce in his music all the nuances of the psychological states and artistic images of the heroes of the selected literary works, and following the poetic text, reproduces bright and convincing psychological portraits of the heroes. The composer refers to the poetic texts of M. Tsvetaeva, B. Pasternak, V. Schnittke, Aeschylus (translated into German), F. Schiller, F. Tanzer, H. Narekatsi, and many others, finding a unique musical embodiment for each of the texts, which expresses his personal attitude to the text.

In general, one can say that all of Schnittke's music is autobiographical, connected with certain thoughts and experiences that troubled the composer at the time of working on the piece.

One of the most revealing characteristics and parameters of the artistic integrity of the artist's chamber and vocal music is the close dialogic interaction of its equal components - the verbal and musical levels, which finds its direct expression in the structural-compositional and dramaturgical components of the works.

The instrumental composition of chamber and vocal opuses is very diverse in terms of composition and timbre embodiment, because it includes a wide palette of instrumental voices - from keyboard instruments, including piano, organ, harpsichord, to electric guitars and bass guitars, which are uncharacteristic for the academic direction of musical art. In addition, string, wind, and percussion instruments become permanent members of chamber and vocal ensembles.

Thus, the interaction of the verbal-poetic and musical levels in chamber-vocal creativity reveals two approaches to solving this problem - in the first one, one observes the most accurate observance of all the nuances and features of the poetic text with the desire for the most complete disclosure of its content-emotional side; in the second, there is a fairly free handling of the poetic text, possible permutations (even replacements) of words, notes, repetition, etc., that is, the composer becomes to some extent a co-author of the poetic text, considers it as one of the means of musical expressiveness available to him.

The appearance of the chamber-vocal cycle "Three poems by Marina Tsvetaeva" in the work of Shnitke is extremely representative, because it is not only the first work in the composer's work written in the genre of "poems with music", but also the first chamber-vocal work in his creativity in general. Characterizing his own work, Schnittke points out that the period 1963-1967 was associated with the active use of dodecaphony and serialism, "when there was a belief in the correctness of the technique" [6, p. 32].

Schnittke calls the main compositional basis of his compositional method "sonorous, ear-controlled technique" in combination with attention to the intonation-textural richness of the musical text [6, p. 23]. He tried to avoid excessive stylistic tightness by introducing allusive hints into the sound fabric, since "his personal musical thinking is characterized by a verbal associative component in the presentation of a musical image and idea" [6, p. 23].

The composer believed that working with verbal-poetic texts is the most difficult, because poetic texts have their own structural-compositional and figurative-semantic logic, which must be taken into account, that led to the almost complete rejection of the dodecaphonic technique in this work. Schnittke considered the combination of a poetic word with dodecaphony to be unnatural, because the use of dodecaphony implies compliance with its strict norms and rules, which will have an extremely negative effect on the verbal and poetic level – "a word does not combine well with dodecaphony, because it itself determines everything else" [6, p. 32].

So, one can say that in the cycle "Three poems by Marina Tsvetaeva" Schnittke consciously departs from dodecaphony, putting forward as his main task the exact observance of all the nuances of the poetic word - both in the structural-compositional and figurative-semantic dimensions.

After the forced emigration, during the period of long wanderings abroad, characteristic words appear in the poet's poetic dictionary: roads and versts, wind and night, insomnia and crying. The general emotional color of the poetic lines also changes - they are filled with dark colors: gray, blue, black, as well as red.

In "Three Poems by Marina Tsvetaeva", Schnittke demonstrates an extremely careful attitude to the poetic word and strives to reproduce it in all the smallest nuances in his cycle. The poems of Maryna Tsvetaeva selected by the composer, although they belong to different periods of the poetess's work, make up a single literary composition. "My simple posture" was written in 1920, "Black as a pupil" - in 1916, and the poem "Cut veins" (Russian: "Vskryla zhyly"), which completes the cycle, was written in 1934. Each of the selected poems carries the mood and thoughts of different periods of Tsvetaeva's life.

As the composer admitted: "... the text created the form here: the repeated lines led to analogies in the music as well, the text contained meaningful climaxes, and, therefore, also the musical ones, and the text gave a connection to all this", so the cycle itself was created "freely and, as it were, involuntarily" [9, p. 41].

So, adherence to visual techniques leads Schnittke to abandon the traditional manner of singing, from belcanto. The composer is more attracted by figurative and intonational contrasts, which are more typical of spoken language. Hence the decision to use all the possibilities of the musical fabric, sometimes creating new characteristic techniques for this: on the one hand, wide jumps to dissonant intervals, on the other - second moves narrowing down to microchromatics. For the voice, as for playing the piano strings, the composer uses an approximate pitch. Singing is carried out on certain sounds, as close as possible to a conversation.

But, of course, such innovations in chamber-vocal creativity could not but cause certain difficulties in the performance of such a text, which arise not only in the field of vocal intonation (wide jumps to intervals across the octave; ornate chromatic turns, etc.), but also in terms of fulfilling the special technical requirements of the composer, determined by the modern musical vocabulary. In this regard, at the end of romances (as in many instrumental opuses - symphonic and chamber), the author provides detailed accompanying explanations regarding the principles and the necessary manner of performance (this applies to both vocal and instrumental parts).

4 Conclusion

The performed analysis allows concluding that the principle of "generalization through the genre", presented in Schnittke's works as a kind of montage of genre models, becomes the leading principle of the musical embodiment of a complex dramatic solution in a polystylistic work. At the same time, it is not the individual composer's interpretation of individual genres that acquires decisive importance, but rather the reconstruction of models of selected genres as intonation-semantic unities that have settled in the process of a long historical and cultural development, giving in crystallized intonation forms an expression of a stable, generally significant content. Based on the genre of the Baroque era, ancient forms, the principle of concert and instrumentation, Schnittke fills his compositions with modern trends and means of expression, which makes it possible for interpreters, listeners and connoisseurs of musical art to re-read the old genre. Schnittke's work represents an extensive material, both from a musicological and performing point of view, and previously unknown vocal works by Schnittke would expand the pedagogical and performing repertoire. To comprehensively study his works, an integrated approach is needed that combines general aesthetic, source study, historical-style and system-genre methods of analysis.

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SONATA OP.13 BY L. BEETHOVEN IN THE INTERPRETATION OF OUTSTANDING PIANISTS OF THE 20TH CENTURY: TO THE PROBLEM OF PERFORMANCE STYLE

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Abstract: In the article, on the example of the interpretation of Beethoven's work (in particular, Sonata op. 13) in the performance of prominent pianists of the 20th century, it is shown that associativity plays a huge role in the work of the performer. At a certain stage, as a result of the accumulation of meanings, a literary text inevitably turns into a summa summarum   a derivative of many other texts, interpreting them and entering into a dialogue or polemic with them: so, in Beethoven's works, his music gradually becomes a kind of "music about music" and needs deciphering its context, which, in turn, determines the need for special skill of the performer. Each composition of Beethoven is individualized, there are no templates, typical stamps. The performance of his compositions outside the concept is not able to adequately convey the spirit of the music.

Keywords: Piano sonata, Era style, Performance style, Performance form, Musical intonation, Piano sonatas of Beethoven.

1 Introduction

The perspectives of studying performance as a phenomenon of musical intonation lead to the awareness of musical art in the direction of a real reflection of reality - through the abstraction of procedurality in music, which presents the unity of ideal and material-sensual manifestations, in the contradictory unity of synchronic-diachronic manifestations of classical-romantic stylistic determinants of artistic and performing creativity. L. Beethoven's work, especially his Sonatas, is the source of "dual" performing ways of their interpretation. This is explained by the duality of the very phenomenon of late, "revolutionary" classicism (to which the composer objectively gravitated), which at the turn of the eras of classicism and romanticism gave rise to counter-directed processes of asserting "Beethovenianism" as a "generator" of *romantic* stylistic discoveries (F. Liszt - R. Wagner) and as a "guardian" of the *testaments of the classics* (I. Brahms).

The Sonata genre occupied an exceptional place in the legacy of the great Viennese classic, combining the "etude" genesis (Caprice Sonatas by D. Scarlatti and G. Sammartini) and piano-symphonic expressiveness, which later became associated with the sonata genre in general.

The presence in the composer's work of two-part, "Sammartini's" Sonatas, which were created in parallel with symphonic-orchestral, large-scale piano compositions (such as "Aurora", "Appassionata", etc.), the preservation of the connection with the Italian two-part sonata in the grandiose Thirty-second, - indicate the ambiguity of the composer's understanding of both the genre itself and the stylistic attitudes of reading the Sonatas.
On the example of the most famous Eighth Sonata ("Pathetic") op. 13 of Beethoven, we suggest tracing the stylistic interpretive "vibrations", in the totality of which the artistic merits of the performance are fixed.

2 Materials and Method

The study uses the concept of piano interpretation, the content of which is able to accommodate not only the "shop" issues of piano performance, but also many problematic aspects of musical performing arts in general.

The study of piano interpretation from the inside, "from the first person", from the point of view of the performer, allows identifying the general patterns and functional features of the "image-method-style" triad and its fundamental significance for performance. The image can be defined as the artistic object of musical interpretation itself, the "inner" essence of the phenomenon of a sounding work; in turn, style is seen as the character and features of an artistic object, its, so to speak, "external" expression; method - as a "tool" through which an artistic object manifests itself in real sounding. We understand the method as an artistic and technical "tool" of interpretation.
The methodological basis of the study was a complex of musicological, philosophical, aesthetic, and art criticism approaches, supplemented by certain provisions of the phenomenological method.

3 Results and Discussion

L. van Beethoven's Eighth ("Pathetic") sonata contains bright typological features of the genre in its composition and at the same time possesses special moments of construction peculiar only to it. The presence of a slow introduction to the sonata Allegro I part and, especially, the repetition of the Grave at the beginning of the development and before the reprise create a similarity of the general plan of the Sonata with symphonic drama [5, p. 280-281]. This gives deep theatricality, ritual solemnity to the image of Beethoven's considered work, which is carried out thanks to the introduction of the "idea of rondality", a "closed circle", which is "overcome" by the sonata, covering the architecture of all parts of the cycle.

In the part I, the theme of the introduction, similar to the refrain of the rondo, runs through it three times, creating secondary signs of rondality. Part II, Adagio cantabile, is in the form of a classical five-part rondo, and part III, the finale-allegro, marked by Beethoven as "Rondo", is written as a rondo-sonata. Therefore, the image of the Circle turns out to be dominant: All (primary symbolism, which determines the primary rhetorical meaning of symbols [1, p. 27–28]), within the limits of which tragic sonata-dramatic themes-characters acting in it are included, forming thematic-tonal and motivic-figurative antitheses. At the same time, the Eighth Sonata contains many language turns in the melodies of the themes, embodying more than everyday feelings-affects.

Thus, the composer's text sets the duality of the image of the world, in which divine predestination reigns and at the same time the dynamic orientation of human desires and passions is manifested.

Beethoven was not a supporter of the church, but, like his other contemporaries, including the figures of the Great French Revolution, he widely used signs of sacred music in secular works in order to give them the content of the Highest seriousness [4, p. 10-11].

A detailed further analysis is intended to demonstrate the approach adopted in this work, since the analyzes of Beethoven's Sonatas are not new, although the cultural and paradigmatic preferences put forward by different authors in different studies create the multiplicity of musicological "interpretations" that outline the evolution of human knowledge as a whole .

Let us remind that in connection with Beethoven, the idea of his pre-romantic and romantic position was firmly established, especially in the last opuses and with a clear preference for dramatic collisions. That is, associative and programmatic compositions are distinguished, which have become an academic norm of musical expressiveness in relation to the immanent-musical content of creativity as a whole.

Before talking about the interpretations of "Pathétique" by famous pianists, it is necessary to say a few words about the performance of Beethoven himself, who was an outstanding virtuoso. His playing had little in common with the art of fashionable Viennese pianists. It did not have gallant selectivity and filigree refinement, the purity of the "pearl" performance. He was skeptical about this fashionable way of performing,

considering that there are other values in music. Beethoven's performance was distinguished by its breadth and scope. It was taken over by courageous energy and elemental force.

The piano under his fingers "turned" into an orchestra, although the information about how the rebel composer's works were actually voiced is rather confused (see, for example, the materials of Polish researchers [2, pp. 503-512]). Therefore, the question of the interpretation of what is called Beethoven's performance thinking remains open. The orchestral sound of symphonic music, be it individual instruments or groups of instruments, or tutti - all this could be heard in Beethoven's piano playing. Beethoven concentrated the tendencies that formed the Viennese style as a whole, which could be called "orchestral-oriented". After all, even in the work of the great predecessors of the creator of "Pathetic", the orchestralness of the piano was a fundamentally new quality in relation to the clavier-harpsichordity of the Italian and French schools.

At the same time, one should not forget that instruments contemporary for the composer had string tension 5(!) times less than later pianos. The Polish researcher Gudel indicates the relativity, by modern standards, of loudness increases within Beethoven's crescendo [2].

Yet, Beethoven's playing captivated with the richness of the artistic content, addressed to the theatrical association of this content. It was spiritual, majestic, as it was repeatedly emphasized, full of feelings-affects, romance, especially in the Adagio. The latter is essential, since the principle of partiality leads to a "double style" in the work of one person, as soon as we are talking about the composer and the performer in one person. Classicism in the form of revolutionary classicism defined the stylistic core of the great symphonist's thinking in the field of composition, no matter how significant were the "interspersions" of other directions, "close" or "distant" in time relative to the era of his life activity. But the performance style is worth talking about.

The experimental spirit of the most frenzied among the "musical stormtroopers" of the Viennese School introduced him to the circle of "protomanticism" - because Beethoven's performing activity, due to life circumstances, was closed in the decades of the 1790s.

It is known that in the early and middle periods of his life, Beethoven followed a classically sustained tempo in his performance. Ferdinand Rhys, who studied under Beethoven, said that his teacher played his works, for the most part, strictly rhythmically, only occasionally changing the tempo, which is something opposite to the "tempo dynamics" of the Baroque style [3].

In the later period, Beethoven treated the unity of tempo less strictly. According to the testimony of contemporaries [6], with some exceptions, everything heard in Beethoven's performance was free from any shackles of the meter and was performed tempo rubato in the proper sense of the word. This "hypertrophy of the romantic" in Beethoven's legacy is perfectly demonstrated by the thorough monograph of A. Alshwang and the materials of N. Nikolayeva in the collective monograph of the Moscow State Conservatory [5].

The performance of the Sonata by German pianists is subordinate to the idea of tragedy and Order. Lyrism is more noticeable among Slavic pianists, and we believe that it is concentrated in the playing of S. Richter, a "Russian German", born in Zhytomyr, which fully absorbed the cultural features of the Slavs - in accordance with his non-German name Svyatoslav.

A comparison of the performances of the German pianists A. Schnabel, A. Bredel and the Russian pianist S. Richter indicates a different understanding of the Sonata. Schnabel has more radical tempo contrasts (in Part I Grave ≈ 30, Allegro ≈ 132). Persistence, tenacity, purposefulness stand out [1, p. 356]. When performing the "dialogue" of the first side part, staccato and legato contrasts stand out as articulation characteristics of the

lower and upper registers in the presentation of the theme; mordents appear as sounds of "quiet crying". But the second side is the complete opposite, and its image "wins" as it were: the final chords (in the melody – an inversion of the theme of the Cross g-h-c, which outlines the themes of the Part II) contain echoes of the dialogue of the first side, because the two chords in bar 4-3 from the end are shown softly, deeply, while the final two are sharp and bright.

The second part of the Sonata – Adagio cantbile – performed by A. Schnabel sounds emphatically calm. In the Part II, chorality, an image of reflection is noticeable. In general, the "speech" intelligibility of his playing is impressive. Part III is performed by Schnabel seriously and strictly.

In the performance of A. Bredel, an outstanding German pianist of the second half of the 20th century, the concept of Beethoven's Eighth Sonata is sustained in strict and solemn tones. Grave in his performance is emphasized by slow movement (≈30), the build-up of the crescendo takes place for a long time, with the perceived effect of "approaching" the sound. Bredel's Allegro is more restrained than Schnabel's: $\downarrow = 120$. Therefore, a *glorifying* sound is distinguished - in the spirit of an ancient tragedy, born of dithyramb. The dithyrambic composition defines the music of the Part II, in which peace and enjoyment of this peace are felt.

Bredel does not allow special contrasts between the music of the refrain and the episodes, as well as between the melody and texture of the "accompaniment", that is, he singles out the choral principle of presentation. In his performance, the smoothness of the transition to the expressed relief of the presentation of themes with the subsequent "retreat" into silence becomes the leading one. Part III is built as a gradual build-up, from a calm and attentive sound to sharp motivic and thematic declarations at the end: Bredel clearly avoids contrasting comparisons of dynamics - he prefers the unity of the line, the transition from one quality of expression to another.

The content of Beethoven Sonata in S. Richter is different. Richter in Part I has the pace Grave ≈ 40, Allegro ≈ 130. His playing in Adagio becomes especially tender and subtle. The melody literally "moves" the heart, while in the third part of Sonata in Richter's performance, the Allegro is marked by the dominance of a dreamy tone. The Russian pianist, as it were, "removes" the drama, emphasizes pastoral pacification and harmony of expression. Only near the very end of the piece, the pianist's sound clearly becomes "harder": the power of the final passage brings the listener back to the drama of the Part I. In general, the general tone of Richter's performance is frankly lyrical. This is especially true of Part II, where the theme literally hovers over the texture. In general, intonation-linguistic expressiveness prevails here, in contrast to the intonation-linguistic "expressiveness" of sound management of German musicians.

For comparison, we will also consider P. Serebryakov's performance. We should immediately note that he plays all parts of the Sonata faster than the other pianists named here. Grave of the Part I in him $\downarrow \approx 44$, $\downarrow \approx 122/124$, but with a gradual and relentless acceleration hereafter. The side part is very interesting in its timbral presentation – the rapidity of the change of register timbres is obvious. The Part II of the Sonata is presented in a calm manner. The contrasts of the refrain and episodes are muted: the performer clearly contrasts the whole Adagio with the fast parts of the Sonata. The Part III in Serebryakov's playing is presented at a rather rapid pace - and this rapidity is enhanced by selected melismatics. The main thing in the performance is virtuosic brilliance and emotional pressure.

If to summarize the impressions of the playing of pianists A. Schnabel, A. Bredel, S. Richter, and P. Serebryakov, the common and different in their interpretations can be reduced to the following indicators.

All named pianists emphasize contrasts, contradictions of the image created by Beethoven. However, tragedy is closer to

Schnabel, epic restraint appears in Bredel, drama with a lyrical bent is found in Richter, theatrical drama distinguishes Serebryakov's interpretation. Schnabel's contrasts are sharp, changes in the dynamics of textural filling are instantaneous. Bredel "distances himself" from tragedy and pathos; in his play, drama is "objectified" in the spirit of the "performance theater" of mid-20th century art. In S. Richter's expression, sharpness in the iconic turns of the work are deliberately "erased", his playing in the Part II is "emotional", almost prayerfully insightful. Serebryakov performs convincingly and brilliantly from the position of the "theatre of life".

The performances of Schnabel and Bredel are "synchronous" within the national German school, although the time diachrony 'records' the "change of generations" in the German piano culture of the 20th century. Beethoven gave the subtitle to his Sonata – "Pathetic", but at the same time the idea of the Circle as a ritual sign is structurally emphasized. Accordingly, the pathos of personalism or supra-individual tone is a decision of performer's choice. Dramatism in the traditions of piano classics was very strongly associated with Beethoven, although objectively his work is no less significant in epic stylistic dimensions.

Dramatism is clearly brought to the fore by Schnabel - and in this, his interpretation is more "classical", it corresponds to the stylistic norms of the academic interpretation of Beethoven's music. Against this background, Bredel's approach is more "romantic"; he pushes the idea of "German Beethoven", highlighting that hyperpersonal tone, which is also characteristic of the creator of the Ninth Symphony, although in the hierarchy of expressiveness preference is given to dramatic dialogue.

In the same vein, Richter's lyricism is perceived as more original - a free aspect of Beethoven's reading, while Serebryakov, "lightening" the dramatic load of the finale, still remains within the limits of academic classics, the primacy of the dramatic mental stereotype traditionally associated with Beethoven. At the same time, both named artists represented the Slavic piano school to one degree or another.

Simultaneously presented performance versions of German musicians vividly embody the "reference" concepts of performance, corresponding to the cultural and paradigmatic advantages of one or another time period of the 20th century: the neo-romanticism-neoclassicism of the first half of the 20th century in Schnabel and the minimalist inclination towards rapturous joy - in Bredel.

A natural question arises: What is the classification of interpretations? Translated from Latin, "interpretation" is an explanation that classifies the principle laid down in "interpretation". However, this rather subjective "interpretation" of the performer (and, it turns out, also a subjective understanding of this or that work) may not coincide with the aesthetic or artistic norm. The number of interpretations is equal to the number of performers (of course, performers who are "seeking" and not "stamping" what already has been found, although the line between them is quite conditional, if we take into account the role of the "perfect model" of performance in the specific conditions of the existence of music). It is obvious that only a few ones can be suitable for a true performance, namely, according to the author's intention or contrary to it, but only in correction with the aesthetic and artistic standards of the era.

4 Conclusion

Left alone with the work, as if looking into its eyes, the performer must catch its features, remember their expression. Each time, opening the notes, the task is solved, and there is a desire to understand what the author thought and felt, and one realizes the illusory nature of such an "embodiment". Every performer, every expounder, and, therefore, every interpreter of the author's text, must think about many things, including the fact that the performance should be alive and not museum-like for listeners. It means, namely, when the composer lived and

created (era, country, customs); what social position he occupied; his life path (starting with upbringing in the family), his thoughts, statements, letters, his love, his children and also in which period this or that work was written, under the impression of what, to whom it is dedicated. This is all important, but it can still be aloof from the creative discovery of the Master, because every Discovery is Enlightenment, attachment to the ideal, which has no direct analogues in the bustle of life: this is the law of compensability of artistic and aesthetic activity.

There are many questions, but the answer is sometimes impossible to find if one is not guided by the cultural-paradigmatic attitude of modern world, which provides vital energy to what is being done today, even if it was written in distant times.

So, the analysis of performance interpretations of such a stylistically representative work of Beethoven as the Pathetic Sonata shows the following:

1) Outstanding musicians in every way emphasize the orchestral-symphonic potential of these piano works on modern pianos, ignoring the historical reality of the dynamically restrained sound of such compositions in the conditions of the instrumentation of Beethoven's time;

2) All considered interpretations of outstanding pianists of the 20th century in one way or another are related to the experience of performing modernism, that is, in contact with the art of the era, which clearly confronts the romantic potential of Beethoven's works;

3) The preference of the romantic tendency in the presentation of Beethoven's sonatas, bypassing the frank *ad libitum* - according to descriptions - rhythmic presentation of his works by the composer himself;

4) The "classical – aclassical" alternative of performance stylistic positions defines the limits of the manifestations of alternative stylistic approaches, in which the "classicism" of the composer's text as such is complemented by aclassical elements of expression: tempo, metro-rhythm, agogics, dynamics, articulation, phrasing, timbre, expression, organology, artistry;

5) The superiority of the classical principle of performance, despite the fact that the romantic "exaggerations" of Beethoven himself in the field of rhythmicity are widely known, which testifies to the worship of the genius of the performers who preferred to introduce their varietas into the once declared meanings-images of Beethoven's works, thereby demonstrating the performing individualism of the "interpretive co-creation" based on the text of the author-composer.

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PERSONAL TEXTS OF VOCAL CULTURAL FIGURES IN THE ARTISTIC ENVIRONMENT OF UKRAINE IN 1950-1970

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Abstract: The article examines the personal texts of Ukrainian vocal artists of the second half of the 20th century. The personal text of culture exists in the discursive field of similar texts, and the intertextual connections generated by them (features, factors, components, etc.) reveal the patterns of cultural development. Thanks to this process, research perspectives are actualized, as in our case - artistic and socio-historical discoursing in the mega-description of Ukrainian culture of the second half of the 20th century. The article reveals genre-species nature and specificity of the personal text of memoir, which in our understanding is a written cultural and historical source that reflects the personal perception of events having happened or are about to happen, and fixes them on a documentary-subjective level in a variety of artistic forms, artistic and documentary generalizations taking into account the experience and social and communicative connections of the author. Introduction of personal texts of vocal culture figures of 1950-1970 - B. Hmyra, B. Hnyd, L. Lobanova, E. Miroshnychenko, K. Ognevoy, and K. Radchenko in the cultural-historical context, as a fixed result of spiritual and practical activities of masters of academic singing, is of great importance for the formation of vocal history of Ukraine. These sources, many of which were presented for the first time in the study, are a micromodel of creative life in its real development, ignoring which leads to loss of spiritual integrity, imbalance of change and preservation of cultural heritage. Personal texts of figures of Ukrainian vocal culture of the 1950s and 1970s are often realized on the border between what is allowed and taboos in the cultural paradigm of vulgar sociology. Emerging in the field of view of the researcher after the author's death, they are deprived of the official form of printed publications of a similar type, in which the facts of culture have always been considered through the context of official cultural doctrine.

Keywords: Personal texts, Vocal culture, Vocal culture figures, Art, National culture.

1 Introduction

Understanding culture as a kind of global metatext, where polylogical meaning-making connections are interdependent with the products of reflective consciousness, provides heuristic relevance of art. Actualizing from this point of view personal texts of culture - written sources, distinguished on the basis of their origin (from a certain person) as reflective texts about the product, process, or context of art, we note that they are primarily based on memoirs - letters, diary entries, interviews in the form of memoirs, etc. Such sources realize their potential - historical and artistic richness - in the intertextual discursive field. Their sporadic nature, multidimensionality (from artistic to socio-political narrative), multiple informativeness revive the lost vectors of cultural and artistic development.

The material of the research consists of personal texts of figures of Ukrainian vocal culture of the second half of the 20th century, famous soloists of the Kyiv State Academic Theater of Opera and Ballet named after Taras Shevchenko Hmyria, Gnyd, Lobanova, Miroshnychenko, Ognevoy, and Radchenko. Among them, there are: letters and diary entries of Radchenko of the period 1956–1959; diary entries (four notebooks) by L. Lobanova, written during 1948 - early 1970s; memoirs of E. Miroshnychenko, recorded by the author during 2000-2009; letters, scientific articles, scientific and methodological comments and diaries of Hmyria; scientific and methodological studies and memoirs about the Kyiv Opera of the 1970s by Gnyd; interviews in the form of Ognevoy's memoirs, recorded during the 1990s.

Introduction of personal texts of vocal culture figures of 1950-1970 - B. Hmyria, B. Gnyd, L. Lobanova, E. Miroshnychenko, K. Ognevoy and K. Radchenko - in the cultural-historical context, as a fixed result of spiritual and practical activities of masters of academic singing, is of great importance for the formation of vocal history of Ukraine. These sources, many of which were published for the first time in the study, are a micromodel of creative life in its real development, ignoring which leads to loss of spiritual integrity, imbalance of change and preservation of cultural heritage.

The plurality of the semantic field of personal texts of six famous artists - Hmyria, Gnyd, Lobanova, Miroshnychenko, Ognevoy and Radchenko, who worked at the same time (1950-1970) and in one creative team - Kyiv Opera, to some extent, promotes objectivity in evaluative judgments, and realizes personal reading of history. Their comprehensive study provides a multifaceted understanding of the development of the vocal component of national culture in the discourse of the then vulgar sociology, and thus works to deepen modern knowledge about the cultural and artistic environment of Ukraine in Soviet times. Let us note that the period 1950-1970 is perhaps the least studied in the history of Ukrainian vocal culture of the twentieth century, and explorations of the Kyiv State Academic Theater of Opera and Ballet named after Taras Shevchenko of that period exist only in the form of journalistic stereotypes.

2 Method

In Ukrainian art history, the issue of memoirs of artists was briefly actualized as a component of the theory of epistology ([23, 24]), and their informational content is used in conceptual views on the problems of Ukrainian performing schools ([2, 11, 12, 35], in investigations of the Ukrainian Musical Theater [51], in comments to source studies (letters and diaries of Hmyria [18], correspondence of Boris Lyatoshynsky, memoirs of Benjamin Tolba [55] and Gnyd [13]). Important ones in the context of the stated issues are the concepts of consideration of personality in historiography, where on the basis of memoir sources a multifaceted cultural and social portrait is created ([15, 29, 38]) and literary criticism, which examines in detail the genre invariants of personal texts [4, 10, 32, 43].

Thus, the aim of this work is to determine the components of artistic and socio-historical discourse of personal texts of vocal artists in the linguistic and communicative laws of Ukrainian culture of the second half of the twentieth century.

In order to achieve this goal, we used a number of methods that correspond to the culturological system approach in combination with historical-genetic, comparative methods, scientific-theoretical and musical-culturological analysis. In particular, historical method was involved in justifying the place and role of personal texts in a particular socio-cultural situation of the 1950s-1970s; sociological - to determine the role of the social environment and its impact on the life and work of vocal culture; biographical - to reproduce the portrait of the artist; art history method - to identify the features of the vocal-performing process as the main type of professional activity of the authors of personal texts involved in the study. The semiotic approach and the theory of discourse, general cultural research methods, historical, analytical methods, epistemological principles of cognition are also used.

3 Results

Personal texts of figures of Ukrainian vocal culture of the 1950s and 1970s are often realized on the border between what is allowed and taboos in the cultural paradigm of vulgar sociology. Emerging in the field of view of the researcher after the author's death, they are deprived of the official form of printed publications of a similar type, in which the facts of culture have always been considered through the context of official cultural doctrine. Genre-species nature and specificity of the personal text of memoir, which in our understanding is a written cultural and historical source that reflects the personal perception of events that have happened or are about to happen, and fixes them

on a documentary-subjective level in a variety of artistic forms, artistic and documentary generalizations taking into account the experience and social and communicative connections of the author.

At the present stage, texts of personal origin can be divided into two fundamental subtypes: the first - memoir (subject), the second - personal-communicative (object). Personal texts are also characterized by three main properties: retrospectiveness, documentary, subjectivity, which are associated with the manifestation of individual, personal interpretation of cultural, historical, and artistic process.

The retrospective nature of Hmyria and Radchenko's letters to the Soviet authorities, Lobanova's diary entries, which with documentary accuracy reproduce the situation of creativity at the Kyiv Opera, affects both the content of the information presented in them and their significance as unique. witnessing epochs, which captures information that until recently was considered irretrievably lost. The documentary itself as a component of the personal text reflects both the actual events of the past and the evidence of them. Personal texts of famous artists Miroshnychenko, Ognevy, Hmyria, and others are documents that primarily inform about historical events. The conditional quality of the documentary text is inextricably linked to the level of incorporation of the author in the events he describes. The subjectivity of personal texts indicates their dependence on the views, opinions, ideas, worldview platform of the author. The subjectivity of personal texts reflects the value system of their author. Relatively low level of subjectivity is characteristic of diary entries (diaries of Hmyria, Lobanova, and Radchenko record notes directly or immediately after the cultural fact) and letters. The high level of subjectivity is characteristic of the memoirs and interviews of Miroshnychenko and Ognevy about the vocal art of Ukraine in the 1960s and 1980s. The subjective nature of personal memoir texts, as a measure of the memoirist's awareness of own "Self" and interpersonal relationships to which the author joins, can be a leading factor in determining the value of this text, its place in a number of other sources in the reconstruction and the figures of the master himself.

In personal texts, the conditional hero (author) often means knowing oneself and one's mission in art. This essentially existential process is realized through the factor of historical memory, which essentially preserves and shapes culture. An example is the diaries of Lobanova, who kept them for twenty years, where against the background of the opera life of the capital unfolds the formation of the master, her realization in the theater, professional priorities and more can be traced. On the contrary, in memoirs in the form of an interview, Miroshnychenko explains the contradictory and unreliable explanation of the author's desire to create an ideal myth about self.

Let us focus on aspects of vocal and performing skills. In the personal texts of Lobanova, Hmyria, Miroshnychenko, Ognevoi such basic vocal principles as creative "entering the image", education of the necessary psychophysiological qualities of the actor are emphasized. There are active inclusion in the general musical discourse of the performed work, understanding the integrity of vocal art primarily through in-depth artistic and stylistic analysis of the text. Also, in these texts, the problem of associative thinking in singing is actualized. In particular, Hmyria often attracts the imagination to clearly understand the specifics of the created image. In Lobanova's (2009) [31] diary entries, we find reflections on the will, the executive potential of obsessive desire, as a result of which an active effort is formed to achieve the planned result. Ognevoi pays special attention to the clear work of the articulatory apparatus, thanks to which it is possible to obtain the sound of the necessary timbre, which is as if sung by the soul, emotional, the one that does not violate the correct sound and sound-conduct.

A special place is occupied by the interpretive characteristic of musical works, which is generously inspiring the diary entries of Hmyria. Here we often encounter the problem of interpretation

of a piece of music. A striking example is the controversy with the magazine "Soviet Music" about his performance of the chamber-vocal cycle "Songs and Dances of Death" by M. Mussorgsky. After carefully studying the openly critical material, the singer wrote an article "Controversy with Criticism", in which he consistently and scrupulously proves his rightness about the ignorance of the author of the critical article about the editions of the series. Analyzing the personal texts of Hmyria in the context of the interpretation of musical paintings, we understand how responsibly and meaningfully the singer treated each work in his repertoire. Thanks to these testimonies, important characteristics of the singer's work are voiced: historical and cultural situation, biographical factors, artistic processes, the nature of the artist's creative activity.

Radchenko's diaries as a type of personal memoir texts, covering the period from graduation from the Kyiv Conservatory to enrollment in the soloists of the Kyiv Opera, are based on three components: informational, musical-interpretive, and socio-cultural. An important stage in her creative development was the first tour as a soloist of the Ukrainian Folk Choir under the direction of Veryovka: in diary entries dated 1958-1959, the artist describes the event in detail. A separate plot line in the records of the Belgian period is the theme of the Ukrainian diaspora and its great interest in all cultural initiatives of the USSR related to Ukraine, and directly to the choir under the direction of Veryovka.

Personal texts give an opportunity to form an idea of the singer's role. For example, Lobanova can be attributed to the so-called type of artists - intellectual. The singer created stage art images based on a carefully thought-out concept. She always had a clear idea of the concept of the role proposed by the director and conductor of a play, and improvised only within the planned and allowed by the directors. Miroshnychenko can be attributed to another type of artists who create an image based on subconscious, intuitive feelings. This component of creativity is evidenced by her personal texts, memoirs of colleagues, and the author of the study.

An important aspect of the personal texts published in the study, on which we will dwell in more detail, is the theme of the artist and Soviet ideology. In the context of the discourse of totalitarianism as a certain socio-historical model, which in terms of communication reflects the attitude of the center ("central" political and artistic elite) to regional cultural centers in the 1950s and 1960s, the diaries of B. Hmyria, a prominent Ukrainian bass, are indicative. He left us 600 recordings of chamber and vocal works, 40 opera parts, 85 fragments of music and stage and vocal and symphonic works, which were republished about one hundred and twenty times. Today, his letters, diary entries, as well as scientific and methodological comments have been published, which are of great value to our understanding of Ukrainian vocal art and the Master's fate in the totalitarian system of the postwar period.

Thanks to the Foundation by Hmyria and its President Prince, in recent years, more than ten CDs of the artist's singing have been released, previously unknown archival documents and diaries have been published, representing the life and work of the prominent Ukrainian artist without notes. The printed edition included eight previously unpublished notebooks with diary entries of the artist. Sixteen letters and four telegrams from Shostakovich outline a difficult stage in the singer's creative biography in the early 1960s. It is known that Hmyria's return letters to Shostakovich did not survive: fearing repression, the composer destroyed the epistles.

Hmyria's personal texts help to understand his work in different planes. Among them, the most noteworthy are personal texts that update the details of the singer's biography during the German occupation (1941-1944), as well as documents and diaries of late life, which reveal the dramatic vicissitudes of the singer's conflict with the Kiev Opera Theater in 1950-1960.

The analysis of personal texts shows that the main reason that determined the attitude of the authorities to Hmyria was his

forced stay in Ukraine during the German occupation (1941-1944). Published diaries and letters of the artist confirm this, explaining the situation to those who still support the slander about his cooperation with the occupying forces. Relations of Hmyria with the authorities were difficult even in the post-war years of work at the Kyiv Opera House. Anonymous and denunciations written by "colleagues" did their dirty work, and in the late 1950s the singer left the theater. The published diaries, letters, and appeals of Hmyria are a kind of response to those who tried to denigrate the singer's name in the postwar period, to accuse him of deliberate cooperation with the occupiers.

From Hmyria's letter to Khrushchev, dated June 5, 1944, we learn: "As with beloved mother, I want to share with you everything I went through. On June 21, 1941, I flew to the Crimea to rest. On the 22nd, as is well known, the war began. On July 4, I left the Crimea for Kyiv, but when we reached Cherkasy by steamer, the artist Stanislavova, who was traveling with us, called the Central Committee of the party where her husband worked and asked if it was possible to get to Kyiv. Her husband replied: "Go back, because it is impossible to get to Kyiv now. That's how I got to Kharkiv" [32, p. 242]. In Kharkiv, Hmyria was unable to evacuate to Tiflis. "The first time he is late for the train. The next trip was scheduled for October 15, but on October 13, while tying his underwear, he fainted from a painful shock in his lower back and lay on the floor unconscious for 4 hours. The first diagnosis of a doctor from the clinic was disappointing - subluxation of the spine" [32, p. 243]. The singer then informs M. Khrushchev that on October 14, 1941 he wrote a letter to the head of the Department of Arts at the SNK of the USSR with a request to send him by ambulance to the station. He was denied this, and by October 27, 1941, he was hospitalized.

In 1941 he became a soloist of the Kharkiv Opera during the occupation troops. In April 1942, at the insistence of Gebit Commissariat, Hmyria began working at the Poltava Drama Theater. "In February 1943, under the rapid pressure of our troops, the Germans retreated quickly, I had the opportunity to stay in Poltava, and hid for two weeks, but had to leave the shelter because Poltava was not liberated. It was impossible to hide in September 1943, I was watched (after February), and the German head of the theater, Lieutenant Siegfried Wolfer (director and specialist in theater and music, a good pianist), was especially active… On September 19, our theater moved to Kamyanets -Podilsky… and only from December began to work… until the arrival of our troops. Throughout the occupation, I worked only as an opera singer and participated in concerts where I sang only one aria or song. Did they try to take me to Germany? Yes, and quite insistently. They recorded me on film with the song "Hey, uhnem" and offered to fly to Berlin. Motivated by my wife's illness, I refused until the fall. I have a document dated 1944, signed by a lieutenant colonel and adjutant of the Wehrmacht, which, in particular, states that "Ukrainian singer of the Kyiv State Opera Borys Hmyria has been working in Kamyanets-Podilsky City theater organized to serve the Wehrmacht, since October 1943. According to Wehrmacht experts, Mr. Hmyria is the most outstanding modern Russian bass. He has a rare voice, which with all its power is capable of the subtle nuances. Hmyria's talent and his high culture deserve wide support, and the singer himself is wanted everywhere" [32, p. 244].

Despite this, Hmyria postpones his departure in various ways. He is delaying a travel pass to Germany issued by the Kamyanets-Podilsky Gebitskomisariat, citing first a catarrh of the throat and then inflammation of the eardrum. "The adjutant of the military commandant comes to the apartment and says, 'Don't worry, we'll even take your body out.' During the whole illness I was offered several types of transport several times, including a plane for things, but, motivating by the illness, I rejected these "happy opportunities" in all possible ways [32, p. 244]. This letter became fateful in the life of Hmyria. It is known that as soon as Soviet troops entered Kamyanets-Podilsky, a court-martial wanted to execute the singer, and only Khrushchev's intervention saved him from death.

In the late 1980s, Khrushchev's son agreed to publish his father's memoirs in Ogonyok magazine. Some of these personal texts of the former leader of the USSR are devoted to the complex vicissitudes of the fate of Hmyria. M. Khrushchev recalls: "… The Germans could not withstand the pressure and fled. They left huge military convoys and many people who were dragged to Germany as living labor. Suddenly I am told that Hmyria, a famous artist, a singer with a beautiful voice, was in this convoy… I ordered him to be taken to Kyiv immediately. He was taken away. Then he specifically talked to Stalin about it, because he could not solve this issue himself ... Hmyria is a grand name. He spoke with Stalin, saying that we need to determine our attitude to Hmyria, he is an artist and a very good artist. I did not know him personally… I turn to Stalin: "We would like to leave him at the Kyiv Opera (and he sang in Kharkov before the war), but we will have to wait for very big objections from Ivan Sergeevich Patorzhinsky". Stalin agreed with me: "Yes, take him". I was not mistaken in the negative predictions, voices immediately began to be heard: "We will not sing with the traitor of the Motherland, we will not". I knew where it was coming from. There was patriotism, but there was also envy. We then clarified that Hmyria was guilty of not evacuating when given the opportunity. But it is difficult to find out now, and we do not want to investigate this case. We left the whole of Ukraine. Therefore, those who remained have every right to accuse us of leaving them" [48, p. 436].

During 1944–1959, Hmyria worked at the Taras Shevchenko Kyiv State Academic Opera and Ballet Theater. However, these years turned out to be perhaps the most difficult in the artist's creative biography. Khrushchev, speaking of the envy that prevailed in the Kiev Opera, did not accidentally mention the name of I. Patorzhinsky. Stalin's favorite, a man uneducated, with an unpleasant appearance, became the luminary of one of the leading theaters of the USSR. In his opinion, they are counted in the corridors of power. The audience remembered the colorful image of Karas created by him in Gulak-Artemovsky's opera Zaporozhets on the Danube. As a teacher, he raised a number of famous singers. However, some researchers of Ukrainian vocal art note that his creative work was limited to the image of the same Karas and the performance of popular Ukrainian folk songs, which were very popular with the leaders of the state. Here is what Lobanova wrote in her diary after the play Natalka Poltavka on January 30, 1949: "The luminaries sang in the performance - Litvinenko-Wolgemut, Gaidai, Patorzhinsky. My opinion about the singing of the luminaries was very shaken. Everything they do on stage seems unreal, not what the great masters of art should have. The main thing is that there is almost no vocal sound" [31]. It is also known from Hmyria's diaries that he valued I. Patorzhynsky as an actor and did not perceive him as a singer at all.

Considering the personal texts of artists in the context of the era of totalitarianism, it should be noted that the difficult vicissitudes of the fate of Hmyria directly resonate with the tragic life of another famous Ukrainian singer Mykhailo Ivanovych Donets, who was shot dead by Soviet authorities in the early days of the war. The difficult moral atmosphere at the Kyiv Opera in the late 1930s and early 1940s, caused by denunciations and slander, led to the unjustified imprisonment of the singer, followed by the death sentence. Archival materials testifying to the arrest and murder of the prominent singer are in the CDAMLM and the SBU archives.

Unsurprisingly, Hmyrya at the Kyiv Opera remained under the constant supervision of the relevant state bodies and very vigilant colleagues at work, among whom was I. Patorzhynsky. It is also known that Hmyria was loaded with parts written not for his voice, pre-announced concerts are disrupted, performances are forced to sing without rehearsals - something that would never have happened before, in the pre-war period.

There is another letter from Hmyria to Khrushchev, dated February 26, 1947. From the epistle we learn: "… I have to turn to you for help. Now I am suffering morally. Moreover, it came to the point that I started to have spasms on the basis of nerves

and the ligaments did not close. Every minute I can lose my voice, something that is useful to the state. The directorate deprives me of the opportunity to conduct concert activities, perform on the radio, at the Philharmonic ..., prohibits my performances. I can no longer work in the theater. I turn to you, Nikita Sergeevich, because you are the only one who can save me" [32, p. 54-55].

It seemed that the conflict would be over. In 1951, at the Decade of Ukrainian Art in Moscow, Stalin will receive the application documents for the title of "People's Artist of the USSR" for Hnyria. He will cross it out and write "People's Artist of the USSR" in his own handwriting. It is known that in 1952 Hmyria was awarded the Stalin Prize. From 1955 to 1961, he toured in China, the Czech Republic, Hungary, Bulgaria, and Poland. He was always eagerly awaited in any corner of the USSR, although many tours have been disrupted.

The events of 1957 hurt the soul of the famous singer. He was accused of "reckless interpretation" of the image of Prince of Galicia in Borodin's opera Prince Igor. The singer, who always tried to perfectly implement the composer's idea, was accused of arbitrariness, violation of the tempo, which was the reason for his dismissal from the theater.

On June 9, 1957, Hmyria once again performed Halytsky's part in Prince Igor. The next day, a special issue of the theater's wall newspaper appeared, in which it was written that he sang ad libitum, the orchestra "caught" him, which lowered the quality of the play, this attitude to work "spoils" the youth. The conclusions of the author of the article were extremely disappointing: such a position of Hmyria testifies to the superior attitude to the team. In addition, the singer did not take into account the remarks of conductor Drozdov six months ago, and this is confirmed by the whole orchestra. It should be noted that Hmyria had been singing the part of Halytsky for over 20 years at that time and, according to him, the image of the hero was most successfully read in recent performances, including the mentioned play.

Such humiliation on the part of the theater's management only confirmed his opinion that he should be fired from the theater. In a letter to the director of the theater V. Gontar dated July 1, 1957, B. Hmyria wrote: "So, the principles of my work are diametrically opposed to the creative positions of the theater orchestra and I cannot be changed in any way, because I have always understood music as Casals - in a sense, it is a continuous rubato, and Beethoven writes about it, noting that music does not exist in the notes, but between them. After all, this is my deep creative conviction. The theater management and the artistic management, apparently, agree with the conclusions and remarks of the orchestra, from its creative principles, because for twenty days not a word was said against these accusations. This situation does not allow me to continue working, and I am forced to leave the theater. In a personal conversation, you categorically denied me retirement, despite 21 years of opera and 42 years of general work experience. Therefore, I ask you to dismiss me from working in the theater without a pension" [32, p. 61].

It should be noted that during this period he often asked the authorities in writing to allow him to leave the theater and start chamber and concert activities. In his archive, we find similar letters to K. Voroshilov, M. Khrushchev, M. Bulganin, ministers of culture. The relevant authorities will deal with it until 1959, delaying his retirement. From Hmyria's letter to Golubev, we learn: "I must say that I am waiting for retirement as a dear woman, as the beginning of a happy time when I can truly serve the people as I understand this service… I want to spend my energy, my abilities for the benefit of dear heart of the working people. I see the highest happiness in this: if only I could stay healthy longer. My dream is to come and perform in my native Kharkiv, but is it normal that I have not been allowed to do so for many years? I also want to visit the Volga, the Caucasus and travel around the country in general. Much needs to be re-read, something needs to be written, and this requires "retirement time", which I look forward to" [diary entry of September 13, 1957, cit. in: Lotman, 2000, p. 55].

Creative friendship with the outstanding Russian composer D. Shostakovich became a special page in the biography of the singer and at the same time one of the brightest pages in the history of world music culture. This topic is explored in the book Hmyria and Shostakovich, published in 2006. It carefully analyzes the creative collaboration of the singer and composer on the cycle of romances Pyatidenko, reveals the true reason for the refusal of Hmyria to sing the bass part in the Symphony No. 13 "Babyn Yar" by D. Shostakovich. From the letter of August 15, 1962, of B. Hmyria to D. Shostakovich, we see: "… I had a consultation with the leadership of the Ukrainian SSR on the performance of your symphony Babyn Yar" [32, p. 667].

On August 1, 1969, the heart of the famous singer stopped from a massive heart attack. Researchers see the cause of his early death in the artist's very specific moral environment over the past twenty years and the unhealthy attitude of the authorities towards him. It is known from sources that the last nervous breakdown of the singer occurred after the cancellation of his tour. On this occasion, Gnyd writes in his memoirs that "B. Hmyria was going abroad, but some party officials reminded him of life under the Germans, and put obstacles in his way. That heart attack happened out of excitement" [33, p. 164].

The highly professional art of the singer has always been warmly received by the creative musical elite. At his numerous concerts in the cultural centers of the USSR, concert halls were always crowded. However, some of the authorities in Kyiv and the odious figures in the Kyiv Opera, who formed the totalitarian discourse in the 1950s and 1960s, viewed his work quite differently.

Even after his death, already in the time of Shcherbytsky, the Ukrainian mass media provided quite a lot of information about the singer. For many years in Ukraine, there was an unspoken ban on the broadcast of his recordings on radio and television and the publication of memoirs about the singer. According to Hanna Prince, the curator of the B. Hmyria Apartment Museum, it is known that Shcherbytsky said in one of the private conversations in the Central Committee of the Communist Party, when one of the high-ranking party figures expressed regret over Hmra's untimely death: "Dogs have a dog's death". As it became known decades later, Shcherbytsky's attitude to Hmyria was formed by one of the famous singers, who was respected by all rulers. Fiercely envious of Hmyria's talent and high human qualities, this singer, as in Don Basilio's aria, "quietly, secretly, everywhere, everywhere… spread rumors that Hmyria was a fascist because he sang to Hitler" [41, p. 50].

Shcherbytsky's specific attitude to the figure of Hmyria was formed by people who could not forgive him for his success and creative independence. Due to the limitations of his upbringing and worldview, they could not accept that he sang for the occupiers. As it is known, "Namely after the above-mentioned conversation in the Central Committee of the Communist Party and Shcherbytsky's remarks, radio and television broadcasts in Ukraine with the participation or dedication of Hmyra were banned. During these discriminatory years, Hmyria's singing was heard only in the Russian media. For three years, Vera Augustivna [wife of Hmyria] demanded that Ukraine hear Hmyria's voice again, and only the intervention of the Central Committee of the Communist Party of the Soviet Union put an end to this disgusting campaign" [48, p. 59].

In Ukraine, a new surge of interest in the creative heritage of Hmyria is observed during the years of Independence. During this time, CDs with his recordings were published, numerous publications appeared, and TV and radio programs were released. A striking event of the competition and concert life of Ukraine was the First International Competition of Vocalists named after Hmyria, which took place in 2004.

Summing up, it should be noted once again that the ideological machine of the era of totalitarianism, when Hmyria lived and worked, often leveled his creative potential. The suffering and incredible experiences from which the singer suffered, the loss of freedom had a painful effect on his professional realization,

caused depression. He fought bravely against fate, but remained faithful to his calling.

Thus, the study of personal texts of Ukrainian vocal artists of 1950-1970 is an attempt to consider the cultural-historical process in terms of goals, needs and objectives of modern cultural and art science, which is realized through the peculiarities of self-knowledge and professional realization of Hmyria, Gnyd, Lobanova, Miroshnychenko, Ognevoy, and Radchenko. These sources free the schematics of the image of iconic cultural figures, which helps modern researchers to penetrate deeper into the spiritual and cultural-historical context of life, understand the motivation of certain actions, clarify the individual characteristics of the artist of alienated time, his role in cultural context. Studying the personal texts of a group of artists who worked at the same time and in the same creative team - Kyiv Opera, allows creating a general picture of the creative process in the leading opera team of the time, understanding the role of their work in the context of Ukrainian vocal art. Also, penetration into the stages of their life path and creative formation reveals a set of individual traits as signs of a certain creative environment.

4 Conclusion

In the process of research the conditions of formation of the personal text as a structural-semiotic unit of culture are analyzed, the mechanisms of its formation as an integral part of the universal text in an attempt to understand the place of the creator in the cultural space are revealed. Traditional forms and methods of textology and the phenomenological principle - comprehension of the artist as a phenomenon of historical culturology - were involved in the study of personal texts of memoir character. Genre-type classification (diary, memoirs, autobiography, memoirs in the form of interviews and epistles) in terms of ideological, semantic, conceptual and artistic features, which realizes the polysemantic potential of personal texts in an attempt to reconstruct the creative figure of an artist of alienated time is used.

Personal text of memoir in the author's sense is a written cultural and historical source that reflects the personal perception of events that have happened or are about to happen, and fixes them on a documentary-subjective level in various forms of artistic and documentary generalizations based on experience and socio-communicative connections of the author. It exists in the discursive field of similar texts, and the intertextual polysemantic connections generated by them reveal the regularities of cultural development. Constantly changing with the advent of each new text invariant, the semantic component is never stable, communicatively complete.

It was found that personal texts can be divided into two fundamental subtypes: the first - memoir, the second - conditionally epistological, communicative, studies communicative written sources. Often combined, the two subtypes are presented in diary entries, memoirs, essays, scientific commentaries and interviews, and are explored as meaningfully open texts that make up a culture whose meaning fields are transformed by the inclusion of new personal texts. Thanks to this process, the regularities of the text are actualized, as in our case - artistic and socio-historical discussion in the mega-description of Ukrainian culture of the 1950s-1970s.

It is proved that from the point of view of semiotic semantic layers, the components of the personal text of Ukrainian vocal artists can be considered in two planes: the first - by forms (genres) and their interpretation in temporal alienation, the second - studies the intertextual field generated by related personal memoirs, due to which the process of cultural description is approved.

Personal texts of Ukrainian cultural figures of the 1950s and 1970s exist within the framework of totalitarian discourse. Such a text easily restores the general narrative of vulgar sociology as an analyst of the frank and painful in the diaries of Radchenko

and Lobanova; creative non-realization, oppression of the authorities in letters and comments of the late period of Hmyria; the ratio of creativity and politics in the Taras Shevchenko Kyiv State Academic Opera and Ballet Theater of the 1950s and 1970s (Hmyria, Gnyd, Lobanova, Miroshnychenko, Radchenko). It was found out that the artistic-historical facts analyzed by us are E. Miroshnychenko's participation in S. Paradzhanov's film Ukrainian Rhapsody and M. Rimsky-Korsakov's chamber opera Mozart and Salieri performed by B. Hmyria on the stage of the Kyiv Philharmonic), give an opportunity to see the high professional level of the Ukrainian vocal school and its dominant position as a creative center in the USSR.

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CALL NAMES IN UNOFFICIAL COMMUNICATION OF THE MILITARY: SPECIFICITY OF CREATION AND LEXICO-SEMANTIC BASE

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Abstract: The article identifies and analyzes call names in the unofficial communication of the military, evidenced in journalistic texts from the beginning of the full-scale invasion of Russia (based on the material of such media as "Gazeta po-ukrainskyi", "Konkurent", "Suspilne Novosti", "VolynPost", "Apostrophe TV", "Pyatiy.yua", etc.). The functional nature, combat history, motivational status, lexical-semantic base and peculiarities of creation, connotative coloring of the "second" names of Ukrainian fighters were studied. It has been observed that military pseudonyms actively function in journalistic materials, as evidenced by their large number in texts on military topics, as well as their appearance in headlines and leads. Unofficial anthroponymic factage is differentiated into ten lexical-semantic groups by the keyword-motivator: names by external or internal features of denotations; nominations by occupation, profession or hobby of a person; floronoments; faunonomena; naming other persons (movie and multi-heroes, fairy-tale characters, biblical or mythical creatures, actors, athletes, politicians, writers, etc.); ethnonyms or names of other nationalities, countries; lexemes denoting family relations; Ukrainian or foreign names (own or foreign). Usually, the colloquial version of one's personal name is reflected at the base of the call sign, consonant name as an association to the official surname, names of appliances and household appliances, nominations of phenomena of nature, space, landscape. Some call signs of the Ukrainian military are not included in any motivational group, because these names are single or creative lexemes with multiple meanings. In media materials, such terms as military pseudonyms are used mainly, such as call sign, call name, combat nickname, military nickname, less often – pseudo and nickname. Journalists have repeatedly researched the nicknames of Ukrainian fighters themselves, devoting entire publications to them. The most diverse cases of the appearance of "second" names in the military have been revealed: they are invented by the soldiers themselves, they are given by comrades in the service, given by the military leadership; this is facilitated by a combat history or some unusual incident. Military call signs usually meet a number of criteria: there cannot be the same names; the word that identifies the person should sound clear, be short, and have masking properties. The motivational nature of unofficial designations in the mass media is presented mainly in the quotes of the military themselves, where they explain the origin of their name, or in the testimony of their combat comrades. The nominative base of the unofficial military noun is made up of anthroponyms with unknown motivation, as well as those whose creative lexemes do not cause direct associations in the minds of Ukrainian speakers. It is noted that the fixation and research of this anthroponymic category is important not only for its linguistic and communicative features, but also because today it is very important to preserve these names in popular memory through scientific studies, since over time they may be lost and fall out of use.

Keywords: Nickname, Military, Unofficial communication, Mass media, Russian-Ukrainian war, Motivational group, Lexical-semantic base.

1 Introduction

The anthroponymic space of modern Ukrainian mass media is traditionally represented by a two-component naming system (personal names and surnames). Patronymic names, pseudonyms, and nicknames are occasionally presented. Since 2014, in connection with the Anti-terrorist operation in the East of Ukraine, such an anthroponymic unit as a call name or a call sign has gained special activation in the domestic print and electronic media. Despite the distinct anonymity of the nickname and its narrow scope of distribution, today we are witnessing the active penetration of the military pseudonym into the journalistic context, which is obviously due to the rapid pace of information transmission and the development of social networks. Combat nicknames, as they are also called "call signs", are an inseparable component of the military personal designation, which has a long tradition of existence. Let us recall, for example, the use of military call signs during national liberation struggles in the 20th century by the Organization of Ukrainian nationalists and the Ukrainian Insurgent Army.

Nowadays, call signs are used not only when communicating by radio, but also on a daily basis in the military team, as evidenced by the practice of penetration of these units into the language of mass media. Call names are often defined as heteronyms, since their bearers consistently use these names while in the war zone, and return to their real names in civilian life.

After the full-scale invasion of Russia on February 24, 2022, old military designations appeared in a new perspective, because a large number of new call signs appeared, different in terms of national-mental structure, motivation, specifics of creation, nominative base, combat history, etc. Sometimes it is extremely difficult, if not practically impossible, to establish the motivational character of such names. After all, only the members of a separate military structure, within which the call sign functions, directly know the reason, time, place, and motivational sign. For all other people who are not directly related to a certain military unit, are not members of it, the motivational nature of this name is practically unknown. We perceive such an anthroponym already at the level of lost motivation. We can establish it only through associative interpretation and supposition of possible ways and reasons for the appearance of this or that unofficial name of a fighter. In general, ready-made anonymized or transonymized units of the communicative process appear before us as before recipients. Often, nicknames have a closed nature; they are common only among like-minded people and those people who carry out joint military work. In view of this, it is almost never possible to compile a complete list of all conscripts or those who are involved in it to some extent. We usually learn about the "second names" of combatants through such information channels as journalistic materials, the pages of military brigades in social networks, and the families of the soldiers themselves. Analyzing the publications in the media covering the Russian-Ukrainian war, we observe the active inclusion of various call names both in the actual news texts and in the headline complex. Precisely through the electronic, printed, and television media, we first learn about those unofficial anthroponyms assigned to the defenders of Ukraine. Taking into account the powerful linguistic and communicative potential of these units, occasional creative nature, motivational specificity, richness of the nominative base, we consider their systematization and analysis appropriate. Fixation of these anthroponyms is also important because nicknames can be lost over time, go out of use, especially after the death of a soldier, so it is our duty to preserve these names in popular memory through scientific research. In this we see the relevance of the presented article.

2 Literature Review and Methodology

In modern linguo-Ukrainian studies, the unofficial anthroponymicon has repeatedly been the subject of various aspects of study. In this context, it is appropriate to mention a number of works devoted to a comprehensive description of secondary proper names of members of the Organization of Ukrainian Nationalists and members of the Ukrainian Insurgent Army. The specified problem became the scientific interest of V.V. Nimchuk [8], M.P. Lesyuk [6, 7], N.M. Pavlykivska [9], and others. The conceptual basis of their research is an emphasis on the factors that influenced the choice of pseudonyms, the analysis of the specified language units in the plane of semantics, emotional load, productivity/unproductivity, etc. The thorough description of the socio-political pseudonym of the Ukrainian rebels of the 20s of the 20th century, built on the material of Yuri Gorlis-Gorskyi's documentary novel "Cold Yar", deserves appreciation. In the specified work, N.M. Pavlykivska focused attention on the methods of nomination of field commanders, captains, centurions, characterized in detail the features, as well as functional and informative potential of this type of anthroponyms, differentiated them based on their content [9].

Military actions that have been ongoing in the Donetsk and Luhansk regions since 2014 became important external factors

that led to the intensification of the creation and use of unofficial names of Ukrainian defenders. This type of unofficial anthroponymicon was reflected in the works of many linguists. In particular, L. Kravchenko [3; 4], N.M. Khrustyk, S.A. Petrova, T.S. Serkal [5] focused on the motives for the nomination of call-up Ukrainian servicemen participating in hostilities in the East of Ukraine. According to L. Kravchenko, such names characterize a person according to his appearance, internal features, habits, peculiarities of speech, etc. [3]. N.M. Khrustyk, S.A. Petrova, and T.S. Serkal claim that the motivational approach provides insight into the worldview, intelligence, psychological and physical features, preferences, habits of a warrior, his place of residence, field of activity, ethnicity, etc. [5]. L.M. Pidkuymukha also applied a similar research model, and found out the ways of the origin of call names, their semantic range, outlined the factors affecting the choice of an unofficial name [11]. S.A. Petrova collected and studied appellative and onymic vocabulary as a basis for creating call signs for female Ukrainian servicemen [12]. A fairly extensive semantic amplitude of the nominative characteristics of the unofficial names of military personnel - participants of the ATO is presented in the article by N.M. Shulska [13]. The most typical models and methods of creating nicknames-callsigns of Ukrainian fighters were presented by L.L. Beley. In addition to the functional features of the indicated nominations, the scientist focused on the formal requirements for them, emphasized the typical number of syllables of these language units, considered them in terms of such parameters as regional origin, ethnic identity, gender, education, language of communication, profession, hobbies, traits character, intellectual features, appearance, military history, etc. Among the advantages of the analyzed work is the fact that, on the basis of an anonymous questionnaire, it revealed the frequency of use of call signs after the end of the service of their bearers, as well as outside the limits of military communication [1].

A multidimensional model of the description of the motivational base of anthroponyms is provided by their consideration in the context of comparison. This aspect of the research was proposed by R. Yatskiv, who, having chosen the pseudonyms of participants in the liberation struggles of the 40s and 50s of the 20th century, as an object of scientific study and servicemen of the Anti-terrorist Operation (ATO), found that the derivational basis of both types of nominations is mainly lexemes of the Ukrainian literary language, to a lesser extent - words of foreign origin. In addition, the author emphasized certain differences: among the small number of derivatives of unofficial names of participants in the liberation struggles of the mid-20th century, she found linguistic units characteristic of Southwestern dialectal speech, and Russianisms among the nominations of ATO participants [14].

As one can see, the analyzed linguistic works are mainly devoted to the study of the unofficial anthroponymicon of the 20th century, as well as the description of the call signs of the ATO and OOS participants. As it is knowm, on February 24, 2022, a new phase of full-scale war initiated by the Russian Federation began in Ukraine. Thousands of Ukrainian soldiers stood up to defend their country, each of whom received his call sign. They are actively used by the military in communication among themselves, and we also come across such anthroponyms in mass media communication, in particular in newspaper reporting. The specified linguistic units, their semantic palette, motivation, functional specificity have not yet served as an object of scientific study, which emphasizes the relevance and scientific novelty of our research.

The purpose and task of the research is to identify and analyze call signs in the unofficial communication of the military, evidenced in journalistic texts from the beginning of the full-scale invasion of Russia (based on the material of such media as Gazeta po-Ukrainskyi, Konkurent, Suspilne Novosti, VolynPost, Apostrophe TV, Pyatiy.yua, and others); we aim to investigate their functional nature, combat history, motivational status, lexical-semantic base, peculiarities of creation, connotative coloring, to establish the lexical potential of unofficial

nominations; differentiate the most productive motivational groups of military nicknames by the keyword motivator. We also focus attention on gender features, camouflage features, features of the appearance of a "second" name in a military person, which is used both for radio communication during combat missions and in daily communication during the war.

3 Results and Discussion

Giving soldiers appropriate nicknames is an ancient Ukrainian military tradition. For example, the governor of St. Volodymyr was a boyar with the nickname Wolf's Tail; the first Hetman of Ukraine, Prince Dmytro Vyshnevetsky, was called Bayda, and the commander-in-chief of the UPA Shukhevych was known as Tur and Taras Chuprinka. A false, alternative name is an important regalia of underground military activity at any time. Research into the archives of the pseudonyms of OUN and UPA figures showed that one person could use several pseudonyms. At the same time, several people who did not even know each other had the same unofficial name.

Military call signs can be special words, sound or digital combinations. These names are usually assigned to officials, management bodies, nodes, communication stations for the purpose of quick recognition in the process of communication. The second purpose of using such unofficial names is to keep the real names and surnames of military personnel a secret for a certain professional purpose and for personal safety. It is clear that during military operations, the participants must clearly coordinate their actions and keep in touch with each other. Radio communication is usually used for this. That is why, in order to remain anonymous, the military call each other by call signs. Also, unofficial anthroponyms are given in order not to waste time when addressing people with the same first or last name.

Since 2014, when Russia waged an undeclared war in the East of Ukraine, the crossing of two anthroponymic categories – military nicknames and callsigns – took place in the volunteer battalions, i.e., the long-standing tradition of using a nickname in war and the tactical necessity of masking the person during the coordination of combat operations in the process of radio communication. Just since then, the term *call word (call sign)* began to be used in the sense of a universal military nickname. The term *call sign* is also found in the normative documents of the Armed Forces of Ukraine, where it is stated that for the control of units and fire, the senior command appoints uniform landmarks, signals, conventional designations and call signs, which are strictly prohibited to change.

With the beginning of the full-scale invasion of the Russian Federation, the anonymous corpus of Ukrainian electronic and print media was actively replenished by such an anthroponymic category as military call names. If we analyze the tag "call sign" through electronic search engines, we will come across a large number of journalistic materials that have an indication of the call sign of the military person they are writing about. Using the method of cross-checking of domestic media, it was possible to reveal more than 100 combat call signs. We can see that journalists most often use terms such as call sign, nickname, combat or military nickname, and rarely use pseudo names.

These anthroponymic units not only occur in the language of journalists' texts, but they are often included in the heading complex. For example, let us cite the following titles of mass media publications: *"The coach asked not to develop a "killer" blow": Little Billy serves in the Volyn Teroboron* ("VolynPost", August 21, 2022); *call sign "Komarik"* [little mosquito]: *a fighter with a disability serves in the Volyn Teroboron* ("VolynPost", July 27, 2022); *"Either you kill the monster and live, or you die". War, fear, rage and the erection of an infantryman with the call sign "Viking"* ("Ukrainska Pravda", July 22, 2022); *"This is a war of annihilation", - a junior sergeant of the 10th with the call sign Gryphon about the fight against the Russian occupiers* ("Suspilne. Novosti", July 20, 2022); *Knopa call sign: "I plan to remain in the ranks of the Armed Forces even after our victory. I realized that it was mine.*

And no matter how strange it sounds, the war drags on"
("Censor.net", August 22, 2022); *"I went to the military commissariat three times to ask to be sent to war", - a fighter with the call sign "Batya"* [father] *defends Donetsk region* ("Vchasno", August 26, 2022); *Callsign "Baptist": paratrooper about war and religious beliefs* ("NTA.yua", August 08, 2022); *A military man from Vinnytsia with the call sign "Poet" worked on a tractor before the war, and now he is a driver of a grenade launcher unit* ("Vinnytsia. Info", August 25, 2022).

Journalists have repeatedly researched the call signs of Ukrainian fighters themselves, devoting whole materials to them, such as: *"Volunteer", "Thunder", "Dandelion", and others: stories of the call signs of famous Ukrainian defenders* ("Pyatiy.yua", July 11, 2022); *The mystery of the call sign: how the Ukrainian military chooses a front-line name* ("Apostrof.tv", July 18, 2022); *What are the call signs talking about* ("Apostrophe.tv", March 08, 2022), etc. As one can see, media people use different ways of presenting nicknames: some put them in quotation marks (most often), while others do not.

According to the survey conducted among the military, soldiers usually come up with nicknames for themselves. Sometimes during the war they are given "second" names according to special tables of call signs drawn up by the military leadership.

By their motivational nature, these are anthroponyms mainly in honor of famous persons, region or place of origin, ethnicity, childhood nicknames, distinctive formations, names of occupations, professions or hobbies. Other people's authorship is mostly associated with call signs that arose against the background of a wide variety of military stories [2]. Analyzing the corpus of creation of Ukrainian military nicknames, we observe that such characteristics as education, language of communication, origin do not have a significant impact on the formulation of call signs, although they often become a reference for the meaningful content of an unofficial military name. Examining the content of all-Ukrainian and regional online media, we note that formally, the nicknames of fighters from different parts of Ukraine, unequal in terms of educational level or linguistic behavior, do not differ significantly, because, among their lexical base, there are Russianisms, Anglicisms, allusions to American and Soviet pop culture, admiration for famous people from other countries: writers, actors, athletes, politicians, directors, artists, etc. The only parameter that can be partially detected is the gender aspect, because female military call signs are present in all formation models except for combat history. However, this does not mean that women do not take part in active military operations, but such call signs are ten times less than men.

Despite the fact that the process of creating an unofficial noun is usually spontaneous, according to the requirements of military tradition, call signs must meet a number of criteria. First of all, there are never two identical call signs in the same team, because this name masks a specific person. Also, the word that forms the basis of a nickname should sound clear and be short, two-word names are less common. Disguising properties are not inherent in all call signs, because we find isolated cases when the combat nickname is simply the last name of a military man or its abbreviated version, name or distinctive formation, patronymic form, name of a person's real profession. However, most of the unofficial designations of fighters still have a high level of camouflage. There are recorded cases when women participating in military operations even use masculine call signs to confuse the enemy, as in this example: *She learned to drive a military vehicle in two weeks, men praise the stepmother with the call sign "Tail". The exercise is repeated several times, trying to approach the enemy from different sides. Svitlana with the call sign "Tail" has a stern look, but she happily tells everyone how she learned to drive an armored personnel carrier* ("Ukrainian newspaper", July 16, 2022).

In general, according to the functional nature of the military pseudonym, there are four main types: operational (created for a specific operation, which is then changed); official (fixed for individual positions - they can be transferred to other people who

hold this position); positional (names of individual positions, observation points, etc.); heteronymous (these are names invented specifically for war) [2]. Official, operational, and positional call signs are characterized as those that have a statutory use, because they are usually invented by the higher command. Heteronyms are identified by both the bearers themselves and their militias. For the most part, these names are used not only during communication by means of radio communication in war, but they are used daily in the military team.

The peculiarity of the call names of military personnel in the conditions of war is that they mainly testify to the motivations of the nomination hidden at the level of the mass media audience, which are obviously known only to a narrow circle of recipients of a specific military group. We cannot claim that there are no reasons for the appearance of second names of fighters, because every unofficial name always has a motivational story. Such anthroponymic units cannot be asemantic, therefore, if the military nickname is preserved, then the tendency to its semantic content is also preserved, at least of an approximate or generalized nature. With this in mind, we establish that each nickname of a male or female Ukrainian soldier definitely has a motivational feature, which is often unknown to remote recipients for security purposes in modern military realities. It is not always revealed in journalistic materials, and only in some cases we can learn not only about the reason for the nomination by the call name, but also find out the detailed combat history of its origin. The study of the motivations for the nomination of call names requires special attention, because this makes it possible not only to explain the mechanism of the production of new anthroponyms in the media space during the war, which is extremely important, but also to find out what motivational features reflect the self-expression and identification of the fighters who defend Ukraine today. After the end of the war, unofficial anthroponyms may be lost or generally fall out of use, although military practice shows that call signs "live" with those who receive them for a long time, even in civilian life.

In mass media discourse, we sporadically come across publications in which Ukrainian military personnel themselves talk about their call signs, sharing their combat history, such as: "*My callsign is Khokhol*". "The child of the sun", *another defendershares*. "*It just happened that way – "Ivanich" and "Ivanich", - admits another military man. "I have a Javelin. This RPG-22, "Fly". In short, I climbed, climbed - took a marker and wrote "Javelin" on it. This is how the tank will meet. That's how it took root,*" says the serviceman. One of the soldiers chose a call sign based on history. "*Legend*". Ivan Klimov "Legend" *was the Minister of War in the government of Stepan Bandera. And he was from the village where my grandfather is, he also taught him,*" says the soldier. "*Under the call sign "Whatsapp". We arrived and created a joint group of border guards to know if there was any line-up. I collected everyone's numbers and created a WhatsApp group. That's how they came up with the call sign "Whatsapp" for me*", *the border guard smiles* ("Apostrophe TV", July 18, 2022). Often these can be some funny stories: "*No matter how much you say in your mouth that you are Caesar, you will still be called a stumbling block, because you stumbled as soon as you entered the barracks, for example*" ("Piyaty.yua", Juy 11, 2022). The well-known businessman Leonid Ostaltsev has had a pseudonym *Oduvanchik* (*Dandelion*) since 2014, which he uses until now, and explains the reason for its emergence as follows: "*I did not want pathetic names, but came up with a pseudo, standing with my brothers in the middle of a field of dandelions*" ("Pyatiy.yua", July 07, 2022). An interesting explanation about the origin of his unofficial name *Said* is given by actor and director Akhtem Seitablaev to Channel 5: "*The call sign should be short enough so that it can be remembered well, and it was important for me that the call sign had meaning, and the meaning is that this is Seitablayev Akhtem and, friends, there is another secret hidden there, but more on that later*" ("Pyatiy.yua", July 11, 2022).

We also found publications in the mass media in which representatives of the Ministry of Defense explain the presence

of call signs in the military, such as, for example, the testimony of press officer Oleksiy Godzenko: "*First, in order to mislead the enemy, even if he only theoretically took over the staff of the unit, he knows which unit Petrenko soldier belongs to, and if the call sign is "Hans" he won't know who it is. There can be several people with the same name in one unit, so addressing everyone by their first and last names is a waste of time, no one does that, that's why they are given call signs*" ("Pyatiy.yua", July 11, 2022).

Sometimes, there are situations when the same name is attached to different people due to different naming motives, after which unusual cases also occur. For example, people's deputy and cyborg Roman Kostenko and former chief of the General Staff Viktor Muzhenko have the same nickname - *Thunder*. On this occasion, Roman Kostenko himself made the following comment in the mass media: "*There have often been cases where I arrive at some position, they say - who arrived? I say - tell that "Thunder" has arrived, oh, I was so interested, then I was met by everyone who was there, from the higher command, they say - but where is "Thunder?" - I am "Thunder", and Muzhenko is "Thunder-2", because he took it after me, thus there were such curiosities*" ("Pyatiy.yua", July 11, 2022).

Today, we can learn from the media about the military call signs of famous people, which, as we can see, are not classified. For example, the Commander-in-Chief of the Armed Forces of Ukraine Valery Zaluzhnyi has a nickname *Volunteer*, which has been attached to him since 2014. Oleksandr Turchynov, the former secretary of the NSDC, came to the front with the call sign *Pastor*. The director and writer Oleg Sentsov has the call sign *Grunt*, and the former Prosecutor General Yuriy Lutsenko received the pseudonym *Pilat* on the front lines.

The practice of marking with call signs proves that they are used not only during radio communication, but also every day in front line positions, in the ranks of the Teroboron, displayed on clothes, body armor, weapons, etc. The military believes that, ideally, call signs should be kept secret, and they should be changed often in order to mislead the enemy, although in practice this does not always happen. Also, those call names that have absolutely nothing to do with people, but arose by chance, have the most masking properties. We identify unofficial anthroponyms with the highest frequency of use. According to the press officer of the Ministry of Defense, "you will definitely meet a fighter with the call signs "Ded" [grandfather], "Boroda" [beard], "Malyy" [little] ("Pyatiy.yua", July 11, 2022).

It is appropriate to differentiate the call names of the Ukrainian military into motivational groups only on the basis of associations that arise through creative lexemes-motivators, since the real reason for the appearance of a soldier's "second" name is not always known. On the other hand, it is necessary to conditionally qualify combat nicknames according to specific motivational characteristics, because a creative lexeme can be misinterpreted as managing only its own associations. We have observed this in real examples in the mass media since the war in Eastern Ukraine: "*The call sign Psych is not because of character. Serhii is a military psychologist and currently serves in the Luhansk region in the SIMIS military-civilian cooperation unit*" ("Hromadske", January 19, 2015). We are also convinced of this by reading the journalistic material on the official TSN.ua website: "*We warn the world community that the nicknames of Azov people: Indus, Algiers, Americos, Latinos are not related to any other country, except Ukrainians. Homer, Petrarch, Salvador, Shakespeare are fighters of "Azov"*" ("TSN", February 12, 2016).

Among the recorded call names of Ukrainian soldiers, the following lexical-semantic groups can be distinguished, which served as dominant factors for the creation of an unofficial anthroponymicon during the war:

I. Names that indicate external features or internal features of denotations: *Lysysi* [bald], *Kulak* [fist], *Livsha* [Left-handed], *Khmuriy* [grumpy], *Lentjay* [Lazy]. We record the following examples of usage in the mass media: *A fighter of the National Guard of Ukraine, a scout-sniper with the call sign Bald, who was seriously wounded during one of the "forays", got married* ("Gazeta po-ukrainsky", May 08, 2022); *According to a fighter with the call sign Kulak, the task of their unit is to hold out* ("Gazeta po-ukrainsky", April 04, 2022); *On July 8, the Major of the 72nd Separate Mechanized Brigade named after Andriy Verkhoglyad of the Black Zaporozhians with the call sign Livsha. He died in a battle with the occupiers on June 22* ("Gazeta po-ukrainsky", August 07, 2022); *Behind the camouflage balaclava, only gray eyes are visible. A man with the nickname "Black" comes from Blystavitsa, which is 6 km from Lubyanka. - I joined the DFTG after the Russian soldiers were expelled from the Kyiv region, four days later, - says "Black"* ("Gazeta po-ukrainsky", July 16, 2022); "*The result is 200 prisoners. Because we are at home, on our land, we fight it back. And they - no one wants to die for this land", explains the fighter with the call sign "Khmuriy"* [gloomy] ("Gazeta po-ukrainsky", May 08, 2022). Individual combat nicknames of this variety demonstrate antonymic properties according to the lexeme and motivational characteristic: "*I adore your boredom, with the help of which you forced me to "prompt" everything to your brigade. That's right, because your nickname is "Lazy" - you had to heat me up. You were able to. I adore your projects, which will now be a memory of you..." - wrote Biryukov* ("Gazeta po-ukrainsky", July 29, 2022). This example reveals the use of a colloquial lexeme among the creative pseudonymous base.

II. Nominations indicating the occupation, profession, or hobby of a person: *Fireman, Boatswain, Lawyer, Musician, Surgeon, Artist*. In the mass media, we come across the following textual examples of military call signs: In the team, Oleksandr Kukurba had the call sign "*Kochegar*" [stoker]. – *As a stoker loads fuel into the furnace of a locomotive, so did Oleksandr pelt Muscovites with rockets, – says the hero's teammate. - He was 100 percent in his place* ("Gazeta po-ukrainsky", August 08, 2022). The figurative context of the specified name of the military is created through a comparative turn in the form of a quote. Other call signs of the analyzed type function in the following fragments of journalistic texts: *Killers from the special services of the Russian Federation hunted a veteran of the "Azov" regiment with the callsign "Boatswain". They planned to liquidate him. The name of the "Azov man" is Serhiy Korotkykh, reports TSN.ua with reference to information received from one of the special services of Ukraine". According to our data, we are talking about "Boatswain", Korotkykh",* - informed the source of the publication ("Gazeta po-Ukrainsky", August 08, 2022); *The bodies of two Russian invaders who broke into the city but were killed were dug up in Kharkiv. They were found near the Industrialna metro station. Anton, a military serviceman with the call sign "Jurist" told "Suspilne" about this* ("Gazeta po-Ukrainsky", July 05, 2022); *On April 22, 31-year-old Anatoly Logunov, a medic, died during the liberation of the village of Ruska Lozova in the Kharkiv region from the Russian occupiers. On the first day of the war, he went to the front as a volunteer. He had the call sign "Surgeon"* ("Gazeta po-Ukrainsky", June 16, 2022); *On April 18, a combat medic, 23-year-old Valentin Moskivets, nicknamed "Doc", died during the war with the Russian invaders. He was buried in his native village of Khreschate in Poltava Oblast. Before the war, he took third place in the competition as the best specialist in tactical medicine of Ukraine* ("Gazeta po-ukrainsky", June 16, 2022); *Before the start of the full-scale war, Volodymyr worked as a tattoo artist, but after February 24, 2022, he changed his profession and became a military man. Already at the front, he received the callsign Artist* ("Suspilne.Novosti", September 11, 2022). It has been observed that in some contexts the motivational nature of the unofficial name of a fighter by occupation is transparent, as, for example, in the above constructions: *Surgeon, Doc* - doctors by profession. In the media, we come across occasional cases when, for example, a man has the nickname *Musician*, although in the journalistic text we read about his sports interests: *Artem Borodavka with the nickname "Musician" died during the battles for the liberation of Kharkiv Oblast. Ultimatum player Artem Borodavka died in battles with the enemy* ("Gazeta po-ukrainsky", June 21, 2022).

III. Nominations based on floronomes: *Kalina: The "Azov" regiment believes that the de-blockade of Mariupol is possible. This was stated by the deputy commander of the "Azov" regiment with the call sign "Kalyna" in a commentary on Radio Liberty* ("Gazeta po-ukrainsky", April 04, 2022).

IV. Call signs of faunan origin: *Buffalo, Bison, Tyra, Swallow, Bat, Bear, Crook, Scorpion, Honeydew*. We learn about the functional nature of these unofficial names from the media context: *During the defense of Mariupol in Donetsk region, a 20-year-old Ukrainian soldier with the call sign "Buffalo" and his partner came under mortar fire. Shrapnel pierced his legs. – My partner crawled into the basement, he couldn't pull me, – says the defender of Mariupol. – Shouted: "Buffalo", crawl, you have to live"* ("Gazeta po-ukrainsky", August 11, 2022); *The 42-year-old soldier introduced himself only by the call sign "Bison". He is dressed in a worn British uniform with a British flag embroidered on it. He is a mechanical engineer from Dnipro. After the start of the war, he bought a hunting rifle to practice shooting and now works as a medic* ("Gazeta po-ukrainsky", August 05, 2022); *Yulia Paevska with the call sign "Tyra" - volunteer, volunteer, paramedic, commander of the "Tyra Angels" unit* ("Gazeta po-ukrainsky", August 01, 2022); *Ukrainian medic with the call sign "Swallow" who treats our defenders. In her social networks, she publishes shots from the front line. She says that the smell of gunpowder is now forever imprinted in her memory* ("Gazeta po-ukrainsky", July 10, 2022); *The chief of staff of the art division with the call sign "Kazhan"* [flyer] *says that relatives quite often serve together* ("Gazeta po-ukrainsky", June 24, 2022); *"Good guys, the British. They invited us to visit them when the war is over," said the commander of the call sign "Bear"* ("Gazeta po-Ukrainsky", April 16, 2022); *On March 15, the legendary nationalist, historian-scientist Mykola Kravchenko died in a battle with Russian enemies. Call sign "Kruk"* ("Gazeta po-Ukrainsky", March 16, 2022); *"Scorpion" turned to the Military Commissariat on February 17, because he understood that a full-scale invasion of the Rashists was inevitable. In his peaceful life, "Scorpion" was the head of a commercial enterprise, and also worked as a political technologist - since 2004, he conducted election campaigns of candidates for local authorities. At dawn on February 24, "Scorpion", who lives near the Lutsk airfield, was awakened by the strong roar of airplanes* ("Konkurent", July 25, 2022); *Behind the shoulders of "Medoid"* [honey bee]*, there is participation in the Revolution of Dignity, during which he received a concussion from a light-noise grenade in Mariinsky Park. But his current callsign was already chosen by his comrades from the 100th unit of the TrO - they drew attention to the stubbornness, uncompromisingness and truthfulness of this thin, but surprisingly tough man* ("Konkurent", August 09, 2022). Analyzing the nominative content of the names of this group, we find a tendency to assign male fighters with masculine appellatives (*Bear, Crook, Bison*), and women – with female ones (*Tyra, Swallow*)

V. Naming of other persons (movie and multi-heroes, fairy-tale characters, biblical or mythical creatures, actors, athletes, politicians, writers, etc.): *Titan, Mr. X, Achilles, Tamerlan, Otaman, Primara, Zhukov, Athena*: *"A scout should be like prodigy. It all depends on the goals for which he enters enemy territory: whether to obtain information or to carry out sabotage work. Or identify the enemy's reconnaissance group and destroy it"*, said the commander of the combined group of the GUR special unit with the call sign "Titan"* ("Gazeta po-ukrainsky", August 08, 2022); *Gleb Babich was calm in life, his friend with the call sign "Mr. X" told at the farewell ceremony* ("Gazeta po-ukrainsky", August 08, 2022); *– I personally did not know Andrii, but I knew him from the words of my comrades, – says Olena Trepilchenko, the mother of the scout of the 93rd OMBr Eduard "Achilles", who died in May. – He was a very bright and kind person, a good soldier* ("Gazeta po-ukrainsky", June 07, 2022); *– We met during the war, during the preparations for 2017. He was a platoon leader. It so happened that we are from the same city, – says the friend and brother of the hero, 28-year-old Yuriy with the nickname "Tamerlan". "Tamerlan" learned from a friend to be an optimist in any situation* ("Gazeta po-

ukrainsky", June 07, 2022); *Pavlo Usov graduated from the National Academy of Ground Forces named after Hetman Petro Sahaidachny. A month after receiving his diploma, he went to war to command a platoon. He fought in Luhansk region and Donetsk region. With the beginning of a full-scale war, he defended Kyiv region. He had the call sign "Otaman"* ("Gazeta po-ukrainsky", June 23, 2022); *– On the front line, most of the work has to be done manually. No one will bring construction equipment here. Digging the ground here is very difficult. Half a meter is soil, and further – stone, – says a military man, 38-year-old Vitaly, call sign "Primara"* [ghost] ("Gazeta po-ukrainsky", June 23, 2022); *The head of the patrol police department of Ukraine Yevhen Zhukov (call sign Marshal) talked about how the Kadyrivites "fight" in Ukraine* ("Gazeta po-ukrainsky", March 03, 2022); *Margarita Rivchachenko received the call sign "Athena" in the ranks of the Teroborona. She was named so because she has been fascinated by ancient Greek mythology since childhood* ("Gazeta po-ukrainsky", April 28, 2022).

VI. Ethnonyms or names of other nationalities (countries): *Tubilets* 'associative to own surname Tuboltsev', *Yalta* 'from the occupied Crimea', *Greek, Brest* 'volunteer of the Belarusian regiment', *Khmelnytskyi* 'from Khmelnytskyi city', *Finn, Scythian, Kyiv, Baghdad* "participated in missions in Iraq", *Khan*. In the media context, we record the following textual expressions of these anthroponyms: *Dmytro Tuboltsev at the front has the call sign "Tubilets". Although the actor is known to most as "Lito" from the non-politically correct comedy about the ATO "Our Cats" by Volodymyr Tykhi or as "Uncle" from the TV series "Guard"* ("Gazeta po-Ukrainsky", August 22, 2022); *Oleksandr Razyantsev. Defender with the call sign "Yalta". The woman origis from the currently occupied Crimea. Before the war, she worked as a stylist and costume designer and dressed famous Ukrainian actors* ("Gazeta po-ukrainsky", July 10, 2022); *– He was a man and a commander from God, as they say, – remembers the character of Andriy, a soldier Yuriy with the call sign "Greek". – He was highly respected, because he was intelligent* ("Gazeta po-ukrainsky", July 06, 2022); *In the battle for Lysychansk, Luhansk region, the commander of the "Volat" battalion from the Belarusian volunteer regiment named after Kastusya Kalinovsky Ivan Marchuk with the call sign "Brest"* ("Gazeta po-ukrainsky", July 06, 2022); *"Young, zealous, courageous and conscious patriots. Don't expect names and surnames. A precise shot was made by Khmelnytskyi (he chose the call sign as a tribute to the area where he comes from)," the report says* ("Gazeta po-ukrainsky", July 02, 2022); *Dmytro, a seriously wounded soldier of the National Guard of Ukraine with the call sign "Fin", spent two days on the battlefield in the Luhansk region* ("Gazeta po-ukrainsky", June 15, 2022); *The commander of the Ukrainian special forces with the call sign "Skif" said that the 112th battalion also underwent training last week. This information was confirmed by his senior commander* ("Gazeta po-ukrainsky", April 16, 2022); *An intern at a Kyiv hospital, a surgeon at the First Volunteer Medical Hospital with the call sign Skif notes: the team he is a part of is currently working at evacuation and stabilization points* ("Konkurent", Junt 15, 2022); *They threw pontoons, which we destroyed," recalled a soldier of the 72nd brigade with the call sign "Kyiv"* ("Gazeta po-ukrainsky", April 15, 2022); *Ruslan Borovyk, call sign "Baghdad", at one time served under contract in the Armed Forces, twice participated in missions in Iraq (2004–2005)* ("Konkurent", May 01, 2022); *Despite the injury and contusion. A soldier of the 102nd brigade, with the call sign Khan, took four wounded comrades out of the shelling* ("Suspilne.Novosti", April 09, 2022).

VII. Names to indicate family relations. Such anthroponyms are few, for example call sign Ded [grandfather] in several media publications: *– I'm about to become a great-grandfather. I am already retired – Chernobyl cleanup veteran, served in the police. Although I myself was not very friendly with the police. Protestant by nature. I am against all such unfairness. And there is enough injustice everywhere, – a 59-year-old man tells about himself under the pseudonym "Ded"* ("Gazeta po-ukrainsky", March 31, 2022); *– A plane flew overhead and then something thumped. That's how I understood that something was*

happening, – explains "Ded" ("Gazeta po-ukrainsky", March 31, 2022).

VIII. Ukrainian or foreign names (own or foreign), usually the colloquial version of one's personal name is displayed at the base of the call sign; a consonant name as an association to the official surname: *Adam, Austin, Elvis, Mamuka, George, Oleksii, Felix, Orest, Antonio*: *Scouts, anti-tank and air reconnaissance came under the command of a military man with the call sign "Adam". Namely in this battalion a musician serves* ("Gazeta po-ukrainsky", July 21, 2022); *On July 4, Ukrainian defender Maksym Ostyak with the call sign "Austin" died in the Kharkiv region* ("Gazeta po-ukrainsky", July 18, 2022); *– Guys from another brigade made a shower from a used rocket, – says a fighter, 39-year-old Oleksii, call sign "Mamuka"* ("Gazeta po-ukrainsky", July 21, 2022); *The fighter of the "Azov" regiment "Georgiy" told why the defenders of Mariupol rejoiced the most when one of the helicopters landed in their location* ("Gazeta po-ukrainsky", September 07, 2022); *A Ukrainian sniper with the call sign "Olexii" eliminated a Russian general* ("Gazeta po-ukrainsky", April 17, 2022); *– The orcs began to create a solid line of defense. We decided to knock them out of there until they finally settled down, – says the soldier with the call sign "Felix"* ("Gazeta po-ukrainsky", April 14, 2022); *Volhynian Ivan Antonyuk (call sign Antonio) gave his life in the war with Russia* ("Konkurent", July 03, 2022). Sometimes we discover the motives of the nomination when the call sign is a name completely unrelated to the official anthroponyms of the soldier: *Head of the press service of the "Azov" regiment Dmytro Kozatskyi (call sign Orest), the author of the famous photos from "Azovstal", got in touch with natives* ("Konkurent", May 27, 2022). Such combat pseudos obviously have a high degree of camouflage. In one journalistic material, we record a case of non-standard use of a military call sign, placed in the text between the official name and surname of a soldier: *In Kyiv, at the Baikovo cemetery, a farewell was held for the commander of the platoon of the Armed Forces of Ukraine, the instructor of the soldiers of the "Foreign Legion" Yevgeny "Elvis" Olefirenk* ("Gazeta po-ukrainsky", July 10, 2022);

IX. Names of devices and household appliances. Such examples are infrequent among military pseudonyms: *Celt: On June 27, Kyiv said goodbye to 44-year-old Oleg Katrych, a soldier of the "Azov" regiment with the call sign "Celt" from Mariupol* ("Gazeta po-ukrainsky", July 07, 2022).

X. Names of phenomena of nature, space, landscape: *Thunder, Frost, Sky, Mountain,* for example: *Yevhen Hromadskyi graduated from the National Academy of the National Guard. He went to war as an officer. Has the call sign "Thunder"* ("Gazeta po-Ukrainsky", July 14, 2022); *A soldier with the call sign "Moroz"* [frost] told *"The Washington Post that with their old equipment, they avoided the trajectories of missiles passing through any populated areas* ("Gazeta po-Ukrainskyi", July 02, 2022). *One of the representatives of creative professions serves in the ranks of the Ukrainian army - a fighter with the call sign "Sky". In his pre-war life, he was a photographer and usually photographed theater artists and ballerinas, the National Guard said on Facebook. "I really like ballet. This is sacred for me. Portraits, people. I photographed a lot of girls from the Kharkiv National Academic Theater of Opera and Ballet. I also worked with the Shevchenko Theater", said Sky* ("Gazeta po-ukrainsky", July 03, 2022); *The Military of the Armed Forces of Ukraine with the call sign "Hora"* [mountain] *together with its partners purchased "Pinzgauer" armored all-terrain vehicles for the Ukrainian army* ("Gazeta po-ukrainsky", July 06, 2022).

Among the unofficial anthroponymic facts in the mass media space, we find the call names of the Ukrainian military, which, according to the creative component, are not included in a separate motivational group, since such names are single, or the lexeme reveals many meanings: *It is not so easy to get into our regiment, – says a resident of Azov, 37- year-old Oleksii, call sign "May". – For those who previously served, an interview with the commander and a month of probation await* ("Gazeta po-ukrainsky", July 14, 2022); *During the battles for Mariupol,*

the Ukrainian military helped the local population, which could not evacuate, with food. Oleg, a soldier of the Azov regiment with the call sign "Gallery", told about this in an interview with Radio Svoboda ("Gazeta po-ukrainsky", June 25, 2022); *The commander of the department with the call sign "Mohyla" also shared his impressions of working on the new equipment* ("Gazeta po-ukrainsky", June 17, 2022); *"The importance of the first flight was that many people looked at this operation as impossible, so we wanted to show other pilots and military that it is possible", said the soldier with the call sign "Flint"* ("Gazeta po-ukrainsky, June 09, 2022); *The self-styled "court of the DNR" sentenced two soldiers of the "Azov" regiment to be shot. In particular, they want to execute the fighter Konstantin Nikitenko with the call sign "Fox" and Mykola with the call sign "Frost"* ("Day", July 10, 2022); *The Russian occupiers greatly overestimated and underestimated the capabilities of the Ukrainian defenders. A military pilot of a MiG-29 fighter with the call sign "Juice" stated this in an interview with "TSN"* ("Gazeta po-ukrainsky", July 25, 2022); *An "Azov" fighter with the call sign "Tork", who managed to get out of Russian captivity, saw his beloved for the first time after his release* ("Gazeta po-ukrainsky", July 14, 2022); *As the head of Mariupol defense communications with the call sign "Molfar" admits, it was expected that the main forces of the Russians would go from the direction of Bezimenny* ("Gazeta po-ukrainsky", July 09, 2022); *The vehicle has already been marked with three marks for successful hits, but the fighter with the call sign "Kuzya" specified that there were six successful attacks* ("Gazeta po-ukrainsky", July 02, 2022); *In the photo in the middle, there is a defender with the call sign "Fartovy"* [lucky]. *It was he who blocked the attackers on the stairs and prevented them from reaching the children* ("Gazeta po-ukrainsky", March 02, 2022).

Interesting military nicknames are numerical names that are extremely rare in general: *This was told by Acting the commander of the "Azov" regiment, Major Mykyta Nadtochyi with the call sign "Raz-Dva"* [one-two] *in an interview with "Radio Svoboda"* ("Gazeta po-ukrainsky", June 18, 2022); *The 45-year-old colonel has the call sign "122". He is the commander of the regiment for the protection of important state facilities* ("Gazeta po-ukrainsky", May 26, 2022).

Journalists pay special attention to the call signs of Ukrainian fighters when they present several of them in small text fragments, such as: *A team of Ukrainian soldiers with the callsigns "Khmelnytskyi", "Turok"* [Turkman], *"Green", and "Salamandra" destroyed an enemy cruise missile X-22* ("Gazeta po-ukrainsky", July 02, 2022); *In Kyiv, they said farewell to the fallen soldiers of the "Azov" regiment Vitaly Krasovsky with the call sign "Kros" and Danylo Rybalchenko with the call sign "Fish"* ("Gazeta po-ukrainsky", June 30, 2022); *"The most interesting missions take place behind enemy lines. This is the installation of explosives behind the front line, abroad", said fighters with the callsigns "Handsome" and "Twenty-two" – 25-year-old sergeants who have been fighting with the Russian Federation since the beginning of its invasion in 2014* ("Gazeta po-ukrainsky", June 27, 2022); *According to the press service, the video is the result of the coordinated work of border guards with the callsigns "Rubizh"* [border], *"Muscat", "Johny", and "Rose"* ("Gazeta po-ukrainsky", June 04, 2022).

Despite the fact that the military nickname is usually short for the purpose of ease of use, we sporadically come across two-component names: *"I decided that I had to go. Not to wait for them at home, but go to meet them closer to Moscow", a soldier with the call sign "Vas Vas" commented on his decision to join the Armed Forces* ("Gazeta po-ukrainsky", August 07, 2022); *Abigail, 30 years old, is the communications director of the "Foreign Legion". The last name is withheld for security reasons. She has the call sign "Mockingjay"* ("Gazeta po-ukrainsky", July 17, 2022); *Height 194 cm, weight in the range of 125-130 kg: a hero with the callsign Little Billy serves in the Volyn Teroboron* ("Expresso", August 22, 2022). But such a phenomenon is usually unproductive among military pseudonyms.

The analysis of the contextual presentation of the unofficial designations of the participants in the hostilities showed that most often the call sign appears in the mass media, represented by the quotation material of comrades in the service or presented in an interview with the fighter himself. Less often, next to the unofficial name that a person uses in war, journalists provide the official surname and first name, sometimes - just the first name. We rarely find out about the reason for the appearance of such a name, although in some publications we still come across extensive combat stories and interesting cases. For example, a soldier with the call sign *Santa* tells the following story: *I came with my beard, wearing a New Year's hat, which I received at the beginning of the year and took with me. The look is like in Santa Claus. Everyone in the "Legion" knows me as Santa, because the deliveries named "With love, from Santa" are gifts to our combat units on the front lines* ("Gazeta po-ukrainsky", July 31, 2022). The communication director of the "Foreign Legion" admits the humorous nature of the appearance of her "second" name: "*Nobody here chooses their nicknames. It was given to me by co-workers, a roommate. "Mockingjay" (a fictional bird in the "Hunger Games" film and book trilogy, a cross between a mockingbird and a genetically engineered spy bird, a jabberjay. – Gazeta.ua). In addition, she looks like a character from the Hungarian national game. The image is also associated with superhero characters who fight against evil and a totalitarian state. So I became such a "Mockingjay" only in the field of PR. This nickname stuck to me as a joke*" ("Gazeta po-ukrainsky", July 17, 2022).

Sometimes, the process of the appearance of a call sign goes through several stages, since the unofficial military name can change for various reasons, in particular, due to the presence of similar names, as we can see in the examples: *My call sign is "Vognyk". True, Serhiy Pantyuk first gave his brother another one – "Fire", which lasted for several hours. (Serhiy Pantyuk is a Ukrainian writer, translator, editor and publisher. He serves with Dmytro in the Teroboron of Kyiv. – Gazeta.ua). Once we were passing through the corridor and someone called me loudly: "Fire!" And everyone who stood with weapons responded to this command. Therefore, we decided that this case is hopeless, because they will shoot each other. Then they started calling me "Vognyk". Probably because I have fire inside. I don't think it's a tie to the role, because it's stereotyped thinking (Dmytro Linartovych's most famous role is "The One Who Walked Through the Fire". – Gazeta.ua)* ("Gazeta po-ukrainsky", April 15, 2022); "*In May 2014, when one of the volunteer battalions was being organized in Dnipro, I joined the unit. When the question arose of choosing a call sign, I initially called myself "Docent, because I was a teacher at a university. But at that time, the unit already had its own "Docent". So I got a "mathematical" pseudo from my brothers, he says. "Mathematician" comes from Donetsk. With the beginning of the Russian-Ukrainian war, he took his family to Poltava. He took part in hostilities, and later started working with veterans. In the first days of the large-scale Russian aggression, he was at the origin of the organization of voluntary formation. He is responsible for the organization and operation of mobile patrols. – I fired the first shots in this war on May 2, 2014. Being then a retired lieutenant colonel, I drew my weapon in Donetsk. Since that time, I am permanently at war and keep myself in good shape, – says "Mathematician"* ("Gazeta po-ukrainsky", March 31, 2022).

There are also motivational stories when factors related not to the soldier himself, but to his family, served as the reason for the appearance of the nickname, as in this case: *the grandfather and grandmother of the grenadier "Slovak" were deported from Czechoslovakia in 1947 as part of Stalin's operation "Visula" – this is the explanation of the call sign chosen by the man. The physically gifted boy has been fond of weightlifting, karate, and boxing since childhood – so even now he manages to maintain himself in excellent physical shape* ("Konkurent", August 09, 2022).

4 Conclusion

Therefore, the anthroponymic corpus of call signs in the unofficial communication of the military, recorded in the mass media texts of the domestic Ukrainian mass media since the beginning of the full-scale Russian-Ukrainian war, testifies to the lexical-semantic diversity, stylistic uniqueness, motivational feature, combat context, and gender specificity of this variety of units in the linguistic and communicative space of Ukrainians. The "second" names of the Ukrainian military actively function in journalistic materials. This is indicated not only by their large number in the texts of mass media, but also by the fact that military pseudonyms often appear in headlines and leads. On the basis of processed media materials from the context of quotations or interviews with the military themselves, it was possible to find out the real motivational characteristics of the call names of the fighters who are defending Ukraine today, or those who, unfortunately, have already died. Among the analyzed base of military pseudonyms, anthroponyms with unknown motivation were found, as well as those whose creative lexemes do not cause direct associations in the minds of speakers. Usually, such names appear as linguistic puns, word-forming modifications, occasional names. According to structural features, one-component formations prevail; occasionally we come across two-component units. For the lexical component, both Ukrainian and borrowed words are used. Due to the emotional nature, among the call names of the Ukrainian military, there are both neutral nouns and diminutives or augmentatives. The dynamic nature of such unofficial anthroponyms in the direction of increasing the actual base and non-standard creation models indicates the great heuristic potential of these linguistic units in the future, because it will allow expanding the range of research studies by involving nicknames in detailed analysis at the level of pragmatics, sociolinguistics, psycholinguistics, etc.

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ASTONYMS OF UKRAINE IN THE CONTEXT OF LINGUISTIC AND CULTURAL PORTRAITURE

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Abstract: The paper analyzes the oikonymic space of Ukraine in two aspects onomastic and linguistic, and cultural. The relevance of such a study is dictated by the need to consider onomastic phenomena from the point of view of linguistic and cultural studies to investigate them in systemic-structural and anthropocentric paradigms. It is substantiated that linguistic onomastics as a science contains historical, geographical, ethnographic, sociological, and cultural components and uses their analysis vectors while constantly producing and improving its own. It has been proven that astioculturonyms encode two large layers of information onymic and appellative. Modeling the linguistic and cultural portraits of astonyms of the onymic code made it possible to consider the genesis, functioning features, cultural-historical and national conditioning of each of the names motivated by the onymic. Emphasis is placed on the worldview value of astioculturonyms motivated by appellatives and anthroponyms.

Keywords: Anthroponymic group, Astioculturonym, Astonym, Linguocultural phenomenon, Linguoculturology, Oikoculturonym, Oikonymic space, Onomastics, Onymic.

1 Introduction

Each proper name has a huge cultural potential. Today, man is at the center of the scientific paradigm – his "spirit, science, thought, will". The language and spiritual powers of a person do not develop separately and sequentially, but form a monolithic intellectual unity [10].

In particular, Oikonyms, proper names of settlements, are a type of toponyms and coexist with their other types: hydronyms, oronyms, speleonyms, horonyms, urbanonyms, dromonyms, agronyms, dryonyms, insulonyms, necronyms, microtoponyms. The class of oikonyms is also heterogeneous, but the attention of researchers is most often attracted by astonyms (proper names of cities) and comonyms (proper names of any rural settlements – villages, towns, hamlets). "Oikonomy occupies a prominent place in the system of human values: it belongs to the heritage of popular opinion and is the universal historical and social fact that gives the right to interpret it as a peculiar cultural phenomenon. It is impossible to analyze or interpret the modern Ukrainian multicultural space, bypassing this important link of traditional culture" [18, p. 32]. An innumerable number of onims, initiated almost daily, are formed according to their own laws or according to the laws of the derivation of appellatives; they change, are modernized: having been born etymologically transparent, they become etymologically obscured and difficult to reconstruct or, on the contrary, as a result of numerous studies, many discussions regarding their genesis, the formulation of various versions and assumptions appear in their original transparency.

Examining the formation and development of Ukrainian oikonymy, researchers emphasize the diversity of its units: some oikonyms were formed from appellations and geographical terms, many were preceded by microtoponyms, some settlements received names from hydronyms or oronyms, and others would not have taken place without direct or indirect participation in their creation of anthroponyms or without the transition of a comonym into an astonym and vice versa - it already depended on the status characteristics of the signified.

The linguistic and cultural aspect of onomastic studies would not have been clearly defined without an analysis of the ideas of a whole galaxy of well-known linguists: M. Alefirenko [1], N. Arutyunova [2], E. Bartminskyi [4, 5], V. Zhaivoronok [38], V. Kononenko [14, 15], Yu. Stepanov [34], V. Telia [35], and others.

Creation of own names is a specific type of coding of cultural, historical, linguistic information. Almost 30,000 names of settlements in Ukraine appeared in different cultural and historical eras, and each cultural formation is marked by the choice of the appropriate type of settlement naming. Oikonyms of a certain structural-semantic model at one or another stage of the development of society became dominant, although not the only one. An object was denoted by a word, through which the culture of worldview and world understanding manifested itself, and accordingly, naming and naming perception. The cultural capacity of oikonyms is different, but it manifests itself in each name: whether it is Bolotnia, or Radisny Sad, or Dobrogostiv, or Baranivka. The turn of linguoculturalists to the study of anonymous material is the need of the hour. At the center of the scientific paradigm is a person who not only describes the environment, but also names its individual objects, thus forming an independent multifaceted onomastic code. Explication of its components from the standpoint of cultural centrism is one of the tasks of modern linguistic and cultural studies.

The relevance of the study is dictated by the need to analyze onomastic phenomena from the point of view of linguistic and cultural studies, to make a transition from system-structural, "immanent" onomastic to anthropocentric onomastic, which examines language nominations in close connection with a person, his thinking, spiritual and practical activity.

2 Materials and Methods

The research methodology is conditioned by its purpose, tasks and material, has a complex character and is based on general scientific and actually linguistic methods and techniques. The descriptive method of linguistic and cultural interpretation of settlement names made it possible to analyze oikonyms as a kind of condensed texts with lingual and extralingual information. In this perspective, it closely correlates with the techniques of linguistic and cultural analysis aimed at identifying and describing the national-cultural component in the semantics of the studied onomastic units. The manifestation of the comparative-historical method was the representation of ancient oikonymative models, onymic and appellative etymons, analysis of phono-morphemic and lexical transformations. With the help of the structural method, the method of derivational analysis, the word-forming structure of oikonyms is outlined. The semantic-motivational method helped to establish the motivational factors for the creation of names of settlements, and supplemented by the techniques of analysis of culturological and onomastic codes made it possible to consider oikonyms as linguistic and cultural phenomena.

The comparative method made it possible to characterize the lexical-semantic, derivational and cultural originality of oikonyms localized in different administrative-territorial regions of the country. Using the techniques of etymological analysis and analysis of dictionary definitions, the genesis of the studied units was clarified. The application of the functional-semantic field modeling technique (functional method) ensured the creation of linguistic-cultural portraits of all astonyms of Ukraine with the identification of nuclear and interpretive zones, near and far peripheral zones. Quantitative calculations were used to determine the frequency of representatives of each of the studied codes.

3 Results and Discussion

One of the facets of human culture as a semioticized consciousness is the naming of known and inhabited space – rivers, mountains, forests, fields, settlements, etc. Establishing settlements and giving them a name is a social phenomenon. They, like everything that has come down to us from ancient times (monuments of material and spiritual culture, language, writing, worldview, customs), are the product of social relations.

On the complex path of our history, various factors took part in their creation, among which historical, geographical and linguistic ones are distinguished [19]. O. Kupchynsky emphasizes that the study of the oikonym as a historical phenomenon is an aspect that is relevant and extremely "important, because it reveals the social foundations of the emergence of objects and the various historical genesis of names" [19, p. 6]. The historicism of oikonyms is not expressed in isolated cases, but constitutes the "basis of all names", i.e. they are historical "not in a narrow sense (they report on some event), but always" [27, p. 81], since "Victoria or Bukovyna is a history expressed through the means of language" [27, p. 26]. "Always historical" are even artificial oikonyms – figuratively, ideologically or politically marked.

Nineteenth century was the beginning of the interpretation of the names of settlements in historical retrospect: not only the general vocabulary, but from among the proper names – not only the names of water bodies as the most stable layer of onyms, but also oikonyms are included in the circle of important information sources. The ideas of comparative research, initiated by the works of F. Bopp [6] and Wilhelm von Humboldt [10], made it possible to see the deep essence, the ethnic mentality of the wordsmith in his own vocabulary, and to consider it as a manifestation of non-handmade folk culture. Among the pioneers are M. Barsov [3], F. Miklosych [25, 26], F. Palacký [28], etc. Marked with the names of representatives of the three main centers of Ukrainian scientific progress – Kharkiv, Kyiv, and Lviv, nomenclature studies became clearly defined in the scope of historical-geographical and local history-ethnographic studies.

The enterprising work of I. Vagylevych [36, 37], Ya. Holovatskyi [9], M. Maksymovich [22], L. Pokhilevich [30], and other researchers directed them to the scientific path. "The names of localities are like a petrified document about the soil, primitive culture, way of life, traditions, customs and settlement of our ancestors. The names of the settlements can clearly demonstrate the path of Slavic colonization. In cases where there is no historical evidence, toponyms of the same name convince that the settlers came from the area of the same name", – Y. Holovatskyi quotes the Czech M. Kolyar in the preface to "Geographic Dictionary of Western Slavic and Yugoslav Lands and Adjacent Countries" [9, p. 13–14]. While I. Vagylyevich's reflections on the Celtic roots of the oikonyms Bar, Byblo, Buniv, Kulmaticy, Ruleve, Sopit, Tukhlya (they say they were called Boiks, and the ancestors of the Boiks, according to one of the known versions, were the Celtic tribe of Boiks), about the traces Turkic tribes in the names of the Hutsul settlements Pechenezhyn, Pecheniya, Uzyn, Uziv (because the Hutsuls themselves were derived by the educator from the Turkic tribe Utsiv); let I. Sharanevich's conviction that the Galician oikonyms of Pomoryans, Polovtsians, Pechenezhyns, Prussians, and Prussians should be qualified only as ethnonyms; even though M. Barsov's research was mainly limited to searching on maps for names "sounding similar" to the tribal names of Kyivan Rus, - today they need some clarification, and one thing is undeniable: these were the "first swallows", the first attempts to read the names of settlements as historical ethnoarchival sources [20, p. 17].

Nomenclature studies of the second half of the 19th and early 20th centuries. gradually acquired the outlines of systematicity, and scientists analyze the oikonymic material from two perspectives: 1) the characteristics of the proper names of settlements as a basis for studying the ethnogenesis of the Slavs; 2) collection and popularization of autochthonous vernacular names of settlements and attempts to return them to official and business use.

The problem of Slavic ethnogenesis is one of the most difficult in science due to the fact that, as V. Petrov emphasizes, there is always a lack of adequate sources for its unambiguous interpretation. Researchers become supporters of one of two theories - migratory or autochthonous, built on diametrically opposite approaches: the first - on the recognition of movement as the leading basis of the ethnogenetic process, the second - on the inclusion of Slavs among the unchanged inhabitants of a specific territory since Neolithic times [29, p. 3–6]. Living witnesses of this or that action are not only the names of water bodies, but also the names of settlements. Scientists consider these phenomenal works of national genius as an important source document, often the only one from the pre-writing era.

A real breakthrough in the study of the oikonimikon as an important historical and geographical source took place in the second half of the 20th century. The driving force behind this process was a significant increase in the written source base.

The studios started by historians, geographers and local historians in the 50s logically became the field of wide interest of linguists. The First Republican Meeting on Toponymy and Onomastics in 1959 and the creation in 1960 of the Commission on Toponymy and Onomastics of Ukraine headed by K. Tsyluyk led to the emergence of fundamental general theoretical works on onomastics and the birth of the idea of regional onomastics research, initiated the collection of source material, its systematization and interpretation for the purpose of publishing a complete dictionary of oikonyms of Ukraine. Since then, at the republican level, and after Ukraine gained independence – at the state level, Kyiv, the Institute of Linguistics named after O. O. Potebni, Institute of the Ukrainian Language of the National Academy of Sciences of Ukraine, become the center and coordinator of onomastic work, and powerful onomastic schools are formed and established in higher educational institutions of almost all regions [20, p. 21].

Researchers increasingly appeal to the careful study of chronicle oikonymy. The names of ancient Ukrainian settlements begin to be studied in the circle of historical, geographical and linguistic disciplines: ethnic history, historical geography, textology, historical and dialect lexicology, linguistic geography, etc. Fundamental works are published – at the same time historical-geographical and linguistic, the purpose of which is "to generalize broad factual and genetic information about each ancient annalistic toponym, to establish a connection between the material and spiritual culture of the creators of the toponym system and the names themselves" [8, p. 5–6]. Such work makes it possible to talk about the need to restore historical names as cultural monuments. The return of the historical toponym is "not just a desire to erase unworthy names from the map and instead immortalize other heroes with the means of toponymy, it is the return of the traditional attitude to language, history, toponymy" [11, p. 150].

However, not only microtoponymy, but also oikonymy, in our firm belief, is an extremely culture-intensive and ethnically specific layer of onymic vocabulary. It is not by chance that Y. Karpenko notes: "...toponymy (and more broadly, all onomastics) is an ethnogenetic code in everything related to the ethnogenesis and mentality of the people. And the more ancient time we study, the more weighty the evidence of this code becomes. It remains only to read it adequately" [13, p. 125].

The philosophy of the name is completely imbued with the spirit of the symbol [34], so it is so important to trace the mechanism of symbolization of the oikonym, moreover, the oikonym is not only literary and artistic, but also real. The processes of transforming one's own name into a symbol, creating connotative onyms, or conotonyms, are actualized in the works of researchers.

The popularity of one's own name in society serves as the basis for conotonymization; the presence of bright connotations in the proper name that can represent and replace the conceptual denotation of the general name; stereotypy and repetition of situations capable of "awakening" such a connotation; the possibility to focus on the model of creation of such a semantic structure worked out by language practice [21]. However, if connotation is a way of transforming a ready-made proper name into a symbol, then "geographical-landscape, geopolitical, climatic, economic and household conditions of human life form behavioral signs, mentality, spiritual essence of the ethnic

group" [38, p. 164], which is inevitably marked on the primary the word with which a person names a known, created, inhabited geographical object. Material and spiritual culture, units of the environment and weighty real and unreal quanta are embodied in a word-name, and this word becomes an image, almost always nationally marked. Thus, the proper name absorbs the spirit of time and space to become a symbol of this spirit. This process can be natural or artificial, long-term or momentary, more or less successful, but it always arises from the need to name an object, choosing for it such a verbal sign that is most appropriate at this time and in this area. It does not depend on the fact whether we are talking about naming, when the name of the inhabited object was clearly correlated with an object notable on the territory, or it gave an answer to the question of who settled here, who owns the settlement, what kind of settlement it is, in whose honor it is named, etc. So, the process of the birth of an oikonym is a reflection of the spiritual culture of a person and the material culture of the environment, it is the naming of a mastered and inhabited space through the prism of the native language: for example, the settlements of Gaya, Gai, Gayka are Ukrainian villages, and people named them not only because she settled in a grove, groves, groves, and also because she thought in Ukrainian.

Therefore, the study of the oikonym as a fact of history and geography serves as a reliable basis for linguistic and cultural studies, for consideration of the phenomena of traditional spiritual and material folk culture preserved in the Ukrainian oikonym. The ancient names testify to the ancient settlement of the region by autochthonous Ukrainians; migration processes, accompanied by the transfer of names of native settlements, indicate the durability of historical memory. In most names, the national color is preserved, but it is also being lost today and is being actively revived, despite all kinds of obstacles and political contradictions; artificial, ideologically labeled names pass away along with the era that gave birth to them. The analysis of oikonyms, carried out in the space of linguistic and cultural studies, makes it possible to read in the names of the settlements worldview instructions of the ethnic group, specific signs of its mentality, understanding of the psychology and character of the person-nominator.

The linguistic aspect is often projected on the textual transformation of the proper name. "Whatever one says about the semantics of one's own name (it exists or it does not exist) is mere theorizing, but in fact one's own name contains an immeasurable amount of information – one only needs to see that information" [12, p. 61]. If we follow the usual scheme: "significant – denotate – connotate", which generally defines the structure of lexical meaning, then in the oikonym, as well as in the anthroponym, there is an obvious lack of a pronounced signifier [31], and the connotation can be read, for example, in an artistic text "How not to love you, my Kiev?" with the symbolic load of the astonym [12, p. 20] or in speech ("This is my Vilkhivochka", – a speaker about the village of Vilkhivka). In speech, the oikonym performs not only nominative, but also identification (relation of the name to the object) and differential (relation of the object to other objects) functions [12, p. 234], carrying, in addition, a huge amount of linguistic and cultural information.

The study of the proper name of the city brings the term astonym to the forefront of our research, and in the context of linguistic and cultural analysis – astioculturonym. Today, in onomastics, two synonymous terms, astionim and polysonym, are used to denote the name of an urban settlement. We consider the first of them more appropriate, primarily for formal reasons: in the Greek word polis, the *-s* segment belongs to the ending of the nominative case of the noun, while in onomastic terms-compound words, the first component is usually the base of the creative, cf. also: anthroponym, oikonym, hydronym, etc. Astioculturonym is the name of an urban settlement, comprehensively researched in terms of onomastics and culturology.

The list of basic concepts of linguistic culture includes the concept of code, so we consider it essential to clarify it in relation to oikonymic units Code – "a universal way of displaying information during its storage, transmission and processing in the form of a system of correspondences between message elements and signals that help to fix these elements" [7, p. 492]; "a system of conventional signs or signals for the transmission of information" [32, p. 207]. Language is a verbally objectified code used to encode and verify cultural contents. In the semiotics of culture, the verbal code is defined as basic, although, of course, not the only one [33, p. 564].

We carry out onomastic and cultural analysis of the oikonymic space of Ukraine mainly on the material of astonyms. The choice of the latter is not accidental. Names of cities: 1) culture-rich, "represent a set of civilized ideas about the world picture of a certain society: about natural objects, artifacts, phenomena, isolated in it (in nature) actions and events, mentofacts and belonging to these entities spatiotemporally and qualitatively – quantitative measurements" [35, p. 21]; 2) represent the naming culture of the whole of Ukraine, and not only of a separate region; 3) have not yet been the object of comprehensive onomastic-linguistic-cultural studies. We are aware that comonymous and microtoponymic material is also rich in linguistic and cultural content, but the lack of all-Ukrainian lexicons of such units complicates their linguistic and cultural reading.

The cultural meanings present in each astonym can be decoded through the onymic and appellative codes. In other words, decoding, for example, the astiocultural name Lubotyn, its reading as an element of a collapsed linguistic and cultural text, prompts the researcher first of all to reveal the onym used in the original encoding of the name (anthroponym Lubot). Conversely, decoding the astiocultural name Dolyna makes it possible to identify the appellative Dolyna and talk about the appellative code of the astonym. So, within the onymic code, we explain the origin of the oikonym with the help of another proper name, and within the framework of the appellative – with the help of the common name.

As part of the anthroponymic code, we distinguish individual anthroponymic, anthroponymic group, memorial, hydronymic, microtoponymic, choronymous, oronymous, ergonymic codes; in the structure of the appellative - landscape-artifact, local-ethnic, official, symbolic-worldview codes.

The lower level is formed by microcodes, the realization of which is served by the corresponding groups of onyms: astioculturonyms motivated by Old Slavic composite names, astioculturonyms motivated by composite anthroponyms and "false composites", astioculturonyms motivated by appellative anthroponyms, astioculturonyms motivated by Christian names; astioculturonyms motivated by memorial anthroponyms; astioculturonyms motivated by memorial oikonyms, agionyms, geortonyms; astioculturonyms motivated by appellatives to denote the names of landscapes, astioculturonyms motivated by appellatives to denote the names of artifacts; astioculturonyms motivated by local names, astioculturonyms motivated by ethnic names.

An important component of the onomastic and cultural examination of the name of an urban settlement is the delineation, structuring and modeling of the linguistic and cultural portrait of the astonym. It makes it possible to objectify the implicit social and cultural-national characteristics of the city's name as fully as possible. This is the main difference between a linguistic and cultural portrait and articles in lexicographic publications, which usually only partially present information related to non-linguistic factors.

V. Maslova suggests constructing a linguistic and cultural portrait of each astonym (the scientist analyzes the names of small towns in the Vitebsk region) according to the following scheme: core, periphery (close and distant) and interpretive (figurative) zone. The core of the portrait field forms the value, that is, the proper name; near periphery – factual information

(historical, geographical, linguistic); the far periphery is formed by culturally important features associated with the value priorities of the regional society, with stereotypes and images of the regional language consciousness (meanings as a result of human cognitive activity; culturally loaded cognitive structure); in the interpretive zone (figurative part) various poetic images of the city are concentrated, created with the help of tropes, connotations, metaphors, playing with internal form, etc. [23, p. 29–30].

Astionym is a typical and at the same time specific kind of oikonym. Its typicality is primarily determined by the fact that initially the inhabitants of the yard, settlement, farm, village, etc. usually did not know that the settlement would become a city. Therefore, the name of the city was not chosen deliberately and was not contrasted with the name of the village.

The specificity of astonyms, at least many of them, is manifested in later times, when some village or urban-type settlement acquires the status of a city. The names of such settlements could function without changes, but quite often the opposite has been observed: after becoming a city, the settlement is renamed, its name receives the specifically Slavic suffix -sk (-tsk), which later acquires the status of dominant in astonym formation, or the formant characteristic of ancient toponyms -iya or the component -pol (< ϖλις) 'city -state', etc. An astonym more vividly than a comonym reproduces the spirit and trends of the era that called it to life, it projects name-centric processes in this part of the nomination, thus providing a specific flavor of the astonym continuum.

The Ukrainianness of a Ukrainian city begins with the Ukrainianness of its name. The village is the roots, the city is the trunk and crown of the national tree. The name of each of the settlements is a special linguistic and cultural text, the encryption of which took place at the time of assigning the name, and the decryption continues throughout the entire period of existence of the settlement.

When decoding an astonym, its information field is revealed, which contains historical, cultural, ethnolinguistic, social and, of course, linguistic information. Therefore, the name of the settlement from this point of view is "a condensed linguistic and cultural code with information about a person and the place where he lives" [17, p. 94–95].

The anthroponymic individual code is the most culture-intensive code of an astonym (like the name of any other settlement). Anthroponyms for a long period accumulated information from different linguistic cultures and, together with paremias, language archetypal images, verbal symbols, became the units that model the uniqueness of each national linguistic picture of the world [16, p. 53].

Some researchers note that the anthroponym as an element of language has a direct connection with the spiritual culture of the people and reaches far into the historical depths. The memory of centuries is encoded in the proper name, so much information is embedded in it that modern research methods do not yet make it possible to highlight in full [39, p. 239].

Decoding of astonyms of Ukraine reveals different types of anthroponyms, on the basis of which these astonyms appeared: 1) Old Slavic composite names; 2) Ukrainian composite anthroponyms; 3) Ukrainian appellative anthroponyms; 4) Christian names; 5) surnames (proto-surnames); 6) surnames; 7) borrowed personal names.

The anthroponymic individual code covers four microcodes, represented, respectively, by the following groups of astonyms: astioculturonyms, motivated by Old Slavic composite names; astioculturonyms, motivated by composite anthroponyms and "false composites"; astioculturonyms motivated by appellative anthroponyms; astioculturonyms motivated by Christian names. We consider it important to emphasize: at the time of the foundation of the settlement and giving it a name, the specified anthroponyms could perform the function of personal names,

nicknames, or even surnames, however, it is not the functional status of the name that affects the linguistic and cultural context of our research, but the cultural content of each etymon-anthroponym.

4 Conclusion

Astioculturonyms preserve in their foundations lexemes that determine the semantic content of the name of the settlement, demonstrate rich historical, geographical, worldview information, are often linguistic relics, the reconstruction of which is made possible precisely by the existence of this or that name of the city. Such databases, explaining information about the natural features of the area, about objects created by man, contain an ancient layer of vocabulary, rarely used (or even not used) today – folk geographic terminology

Orientation to the name of the artifact is a higher type of appellative nomination culture. A human-made object became a distinguishing feature of the settlement. Appellations, often inherited from ancient times, often served as bases only for oikonyms and were not used in the creation of other types of onims. A number of geographical terms demonstrate the tradition of using as an etymon the name of the object most notable in the territory.

Linguistic and cultural analysis of astonyms shows that the name of a settlement is a living organism, during its functioning it not only undergoes changes and modifications, but is also often supplemented with numerous descriptions known to most, if not all, residents.

Figurative reproduction of the world by the system of proper names of settlements is one of the key issues of modern onomastic and cultural discourse. In order to define the concept of imagery, among the many meanings of the word image, scientists single out "an image as a special way of seeing and knowing reality and a reflection of reality corresponding to this vision, as a prism of our view of the world" [24]. The imagery of many oikonyms of Ukraine is also undeniable. However, it manifests itself in different ways in the names of specific settlements.

Today, we live in an oikonymous space that began to form in pre-literate times, over the centuries it was either preserved in its original form, or changed, being modified, clarified, adapted to the lexical, grammatical, derivational regularities of the Ukrainian language, and, in the end, became established in the form of modern names of settlements. So, the modern Ukrainian oikonymic space is rich in names of settlements, which reflect a figurative linguistic picture of the world and the efforts of the nominator to transform the word-sign fixed to the settlement into a word-image. However, from the point of view of linguistic and cultural studies, each of these names is a reflection of the era that called them to life, even under the condition of artificial naming or renaming.

The birth of the name of the settlement is a higher level of naming, a natural process that arose from the need to give a proper name to an object that already has a common name, and its decoding is the discovery of a common or proper name that served as the base and core of the original linguistic and cultural text. The implementation of the nominative and appellative codes for the names of settlements was considered based on the material of the names of all Ukrainian cities. The choice of astonyms, or more precisely, astioculturonyms as the main source base, is not accidental. First, these are extremely culture-rich language units that are a reflection of the linguistic personality of the name-giver, his worldview, national-ethnic, regional, social, artistic-aesthetic characteristics, representatives of his spatial-temporal, qualitative-quantitative and value orientations; secondly, astioculturonyms demonstrate the naming culture of the whole of Ukraine, serving at the same time as a background against which in some cases the distinguishing features of the rest of the onomatopoeic systems – comonymous, microtoponymous, anthroponymous, ergononymous, urbanonymous, etc.

The culture of a people is formed, preserved, and transmitted through a code. The culture of naming is not an exception, but rather a confirmation of the above. Astioculturonyms encode two large layers of information – onymic and appellative. The onymic code of the astionyme is much wider, since it is formed by anthroponymic individual and group, memorial, hydronymic, microtoponymic, oronymous, horonymous, ergonymic codes. Astioculturonyms of the symbolic-worldview code, despite all their "non-eponymousness", are of great interest for every linguistic culture. In any historical era, they perform at least two functions: nominative and culturally symbolic.

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NEW VECTORS OF THE DEVELOPMENT OF CULTURAL AND SPORTS DIPLOMACY CAUSED BY THE 2022 RUSSIAN-UKRAINIAN WAR

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Abstract: Russia's armed aggression against Ukraine actualized the research of Ukrainian and foreign scientists on the use of opportunities of cultural and sports diplomacy during armed conflicts. The article analyzes how representatives of the world artistic and sports community reacted to the war in Ukraine and what forms and methods were used by Ukrainian artists and athletes to articulate and protect the national interests of Ukraine on its territory and abroad. It has been proven that in this way they drew the attention of the public, state authorities of the countries of the world to the conflict in Ukraine, Russia's violation of international law and contempt for moral values and human life. Artists and athletes initiated, tested, and successfully proved the effectiveness of new tools and means of cultural and sports diplomacy. The universality of this diplomacy in international relations, the ease of its perception and dissemination in society, combined with the creative approach of its participants in response to changes in world politics determined the development of its new vectors. The effectiveness of these forms and methods lies in the fact that they: 1) helped to relatively quickly inform the public of the countries of the world about Russia's aggression in Ukraine; 2) recognized artists and "stars" of sports willingly joined it; 3) initiated by them, their foreign colleagues, citizens of other countries, football matches, public actions, performances gained public resonance and support in Ukraine and abroad; 4) reached a large audience of various ages; 5) ensured the receipt of funds for the needs of Ukraine to charitable funds; 6) contributed to the establishment of a positive image of Ukraine and Ukrainians, countries of the world that joined these actions. All these efforts were generally aimed at countering "Russian World" and Putin's "rashism".

Keywords: Culture, Sport, Diplomacy, Russia, Ukraine, War, Artists, Athletes, Performances.

1 Introduction

Cultural diplomacy is a course of action based on the exchange of ideas, values, traditions, and other aspects of culture or identity. Cultural diplomacy is aimed at strengthening relations and improving socio-cultural cooperation, promoting national interests in the external arena [37]. Traditionally, three key characteristics of cultural diplomacy are distinguished: breadth (coverage of the activities involved), non-violence, and inconspicuousness [10, 11].

The key tools of cultural diplomacy include the following: popularizing the language of the state in the world and promoting the study of this language by foreign audiences; dissemination of knowledge about the state, its culture, as well as holding cultural events and exchanges (including translation and distribution of books by national publishers); popularization of modern music of Ukrainian groups and performers, folk music and folklore; creation of easy access for foreign citizens to information about the history, customs, and traditions of Ukraine; organization of representation of Ukraine at international exhibitions, forums, literary evenings, and other artistic events; coverage of Ukraine as a state of high sports and cultural achievements; branding of all cultural achievements of Ukrainians and those found on the territory of modern Ukraine as Ukrainian ones; defense of Ukraine's interests in international disputes in the field of culture, etc.

Sports diplomacy is often considered as a part of cultural diplomacy. In this study, the authors distinguish it separately and understand it as the official and unofficial activities of states, governments, special foreign policy bodies to fulfill the tasks of the state's foreign policy by initiating, organizing, conducting, and participating in international sports events with the participation of teams, athletes, coaches and their achievements. The circle of participants in sports diplomacy is extremely wide: these are states, state structures in the field of sports, international and national sports associations, athletes, coaches, experts in the field of sports, mass media, fan movements, business structures, etc.

Russia's invasion of Ukraine significantly changed the perspective of cultural and sports diplomacy. Ukrainian domestic artists and sportsmen use all possible means and activities to spread information about the crimes of the Russian army, try to convey it to their "colleagues in the shop", the world public in general. At the same time, they are also trying to organize fundraising for the needs of Ukraine and the Ukrainian people. That is why we consider the topic of cultural and sports diplomacy during the Russian-Ukrainian war of 2022 to be relevant. Firstly, in this way, it is possible to successfully attract the attention of citizens to the conflict, and, secondly, it is an opportunity to explore the vectors of the development of cultural and sports diplomacy in the conditions of war.

2 Literature Review

The concept of cultural diplomacy is not new. It has been studied by representatives of various sciences, but every time cultural and sports diplomacy manifests new directions of development and attracts new tools. The concept of "cultural diplomacy" was studied by O. Rozumna, G. Shemayeva and V. Petrov, G. Lutsyshyn and A. Honcharuk. Aspects of public diplomacy were studied by V. Tereshchuk. In his studies, N. Zykoon defines cultural diplomacy as a complex of efforts aimed at promoting the interests of the state by means of culture, art, education, and in general, cultural industries. In general, cultural diplomacy needs both the further institutionalization of this element of the system of international strategic communications, and the expansion of the circle of its subjects and potential addressees [41]. D. Dubov and S. Dubova study the policy of cultural diplomacy as a mechanism for implementing strategic communications of the state in detail. Scientists emphasize the importance and influence of public diplomacy in the system of strategic communications. They give examples of its effective use in the activities of the US government in the 1980s and emphasize the importance of cultural diplomacy as a component of public diplomacy. They state that Ukraine lacks experienced management personnel for the development of cultural diplomacy [10, 11]. V. Petrov defines cultural diplomacy as a tool of "soft power" in the conditions of modern hybrid threats, focusing on the institutional aspect of the formation of its system in Ukraine [23]. V. Tereshchuk focuses opinion on the foreign policy tasks of cultural diplomacy in the conditions of global development [29].

Sports diplomacy was actively studied by Ukrainian domestic and foreign scientists. Among them, we highlight N. Bogolyubova, Yu. Filippova, Yu. Nikolaeva, S. Kulik, S. Martynenko, and S. Murey. They prove that sports diplomacy represents one of the effective means of international communication, which contributes to increasing the authority of the state and establishing it in the international arena. The issue of the recognition of states in international law was dealt with by a number of scientists, in particular, V.Telipko, A. Ovcharenko, D. Feldman, H. Jantaev, and others, whose scientific developments constitute an important theoretical basis for the implementation of sports diplomacy.

According to the head of the Bureau of Educational and Cultural Affairs of the US State Department, K. Hughes, sports diplomacy is an effective means of reconciling people, despite their cultural and religious differences, and political differences [29]. The forms of implementing sports diplomacy projects are quite different: holding sports competitions, organizing training programs, working with youth from different countries of the world, organizing sports master classes.

Yu. Filippova notes that the use of sports diplomacy tools in international relations creates more favorable conditions for further dialogue between the parties to the conflict already at the highest – political – level. In modern conditions of globalization and the sharp increase in the threat of political conflicts and crises, the role of non-politicized international organizations and public structures in solving world problems has noticeably increased. It is, first of all, about increasing the importance and role of sports and sports diplomacy in strengthening peace, mutual understanding, de-escalation of tensions in the international arena and establishment of interstate contacts [24].

At the same time, the problems of cultural and sports diplomacy in the conditions of active military operations have not yet been comprehensively investigated. Therefore, the authors analyzed the problems of using cultural and sports diplomacy as a vector of strategic communications during the Russian-Ukrainian war, which began on February 24, 2022 and is still ongoing.

The objectives of the research is to find out how representatives of the world artistic and sports community reacted to the war in Ukraine and what forms and methods were used by domestic artists and athletes to articulate and protect the national interests of Ukraine and how all this accelerates the end of the Russian-Ukrainian war.

3 Results and Discussion

February 24, 2022 - the beginning of a full-scale invasion of Russia on the territory of Ukraine - is a date that is forever etched in the memory not only of every Ukrainian, but also of the whole world. The whole world saw the merciless "liberation" of the Ukrainian people, the genocide and eradication of everything Ukrainian on the way to the "Russian World" and the "liberators". Before the start of the full-scale war, representatives of the Ukrainian intelligentsia determined with absolute reason that one of the indirect reasons for the "boldness" of the Russian propaganda influence aimed at the Ukrainian audience is the inaction of society. Therefore, we agree with the opinion of T. Peresunjko that "the absence of the Ukrainian civilizational message in the world for a long time, the Ukrainian policy of "silence" in the European cultural space created too much free space, yielding and thereby playing along with Russian chauvinism and the latest Russian imperial mythology" [22].

As a result, there are colossal losses: since the beginning of open Russian aggression against Ukraine, numerous cases of destruction of residential infrastructure, killings of civilians and looting by the Russian military on the captured Ukrainian territory have been recorded. As a result of shelling of populated areas in Ukraine by Russian troops, architectural monuments, churches, objects of cultural heritage, sports infrastructure, etc. were destroyed. Only in the first two weeks of aggression (as of March 15, 2022), the Russian army has already destroyed 3,500 infrastructure facilities in Ukraine. Among them: 230 objects of transport infrastructure, 165 objects of life support for the population, such as electric substations and gas pipelines, were completely or partially destroyed [27]. As of June 1, 2022, more than 350 different monuments and cultural objects were destroyed [18]. Using the resource https://culturecrimes.mkip.go v.ua, the Ministry of Culture and Information Policy of Ukraine collects eyewitness accounts of damage or destruction of cultural heritage during the armed aggression of the Russian Federation against Ukraine. As of August 20, 2022, the damage map looked like this (Fig. 1).

Figure 1. Map of cultural losses of Ukraine [18]

Let us highlight the most devastating of them. As a result of the bombardment, the architectural monument - the building of the Donetsk Academic Regional Drama Theater (Mariupol, Donetsk region) - was destroyed; the walls of the historical and architectural monument - the arena-stable building, as well as other historical buildings that are part of the ensemble - were damaged by artillery shelling buildings of the Vasyliv historical and architectural museum-reserve "Popov Manor" of the end of 19th century (city of Vasylivka, Zaporizhzhya region); the facades and windows of the ancient building - the Church of the Intercession of the Holy Mother of God 1895-1907 - were damaged as a result of shelling with reactive charges (Tryohizbenka village, Luhansk region); the architectural monument - the building of the former V. V. Tarnovsky Museum of Ukrainian Antiquities, built at the end of the 19th century, which now houses the regional children's library - was partially destroyed by the bombardment of the city; the facades, windows, and part of the exposition of the Military Historical Museum - a branch of the Chernihiv Historical Museum named after V. V. Tarnovskyi was partially damaged; the architectural monument - the building of the former cinema named after Shchors, of 1935–1947, in which the Regional Youth Center was located - was partially damaged; the facades of the buildings of the architectural monument - the ensemble of the Yelets Assumption Monastery of the 12th–19th centuries, the facades of the monastery walls and the gate with the bell tower of the 17th century, as well as the drums of the domes of the Assumption Cathedral of 12th-17th centuries were damaged (city of Chernihiv); the facades, windows, and roof of the historic building of the old railway station "Zaporizhia-druge" of 1904 were damaged as a result of rocket fire (city of Zaporizhzhia), the facades and windows of the architectural monument - the building of the Kharkiv Art Museum 1912 - were damaged by the blast wave; shelling damaged the architectural monument - the building of the Assumption Cathedral of 1778: all the windows were broken, stained glass windows were damaged and church utensils were damaged; the facades and windows of the architectural monument and urban planning were damaged in 1824/middle of 19th century (Kharkov city) were damaged. Russian military equipment damaged the gate of the landmark of architecture and urban planning - the "Round Yard" of 1820 in the former estate of L.E. Koenig, and the boiler room of the local art museum (Trostyanets, Sumy region) was also destroyed [20].

In the Zhytomyr region, a monument of national importance was destroyed - the Church of the Nativity of the Holy Virgin, built in 1862. In the village of Vyazzka, Korosten district, on the night of March 7, the Russians destroyed the Church of the Nativity of the Most Holy Theotokos, built in 1862. The list of notable and historically important cultural and educational objects and buildings is quite significant, but it is currently unknown how many more such destructions Ukraine will undergo because of illegal, barbaric actions of Russia.

In connection with Russia's purposeful destruction of cultural heritage sites, the world community came forward to protect and help Ukraine in its restoration and reconstruction. In particular,

the Minister of Culture of Italy, Dario Franceschini, stated that the Italian government is ready to rebuild the drama theater destroyed by the Russian occupiers in the city of Mariupol [14]. At the beginning of March, the Prime Minister of Poland M. Morawiecki proposed a plan to rebuild Ukraine with 100 billion euros from the EU budget. These funds will be directed to the restoration of destroyed infrastructure, schools, hospitals, and bombed-out residential areas. The Prime Minister of Greece K. Mitsotakis also stated that "Greece is ready to rebuild the maternity hospital in Mariupol, the center of the Greek minority in Ukraine - a city close to our hearts and a symbol of the barbarism of war". During a conversation with the Minister of Infrastructure of Ukraine O. Kubrakov, the US Minister of Transport P. Buttigieg confirmed that the US is ready to help as much as possible in the process of infrastructure restoration after the end of the war and the de-occupation of Ukrainian territories. Even earlier, the USA announced a package of providing emergency aid to Ukraine in the amount of 12 billion USD. British Prime Minister B. Johnson announced that the West was preparing a kind of plan to restore Ukraine's infrastructure and economy by analogy with the Marshall Plan [19].

International organizations also assured their support. Thus, Ukraine and the EU signed a memorandum of understanding, which unlocks the first tranche of macro-financial assistance to Ukraine in the amount of 600 million euros from a package of 1.2 billion euros [38]. In addition, the Parliamentary Assembly of the Council of Europe (PACE) voted for Russia's withdrawal from the Council of Europe. 216 people voted for this decision, three abstained. The conclusion of the meeting was that Russia cannot be a member state of the Organization, as it committed "gross violations of its Charter".

In the conditions of Russia's war against Ukraine, the domestic cultural "front" is actively operating, that is, long-term strategic influence on society through the means of art. The world of culture helps and supports Ukraine in the fight against the aggressor through music, literature, social actions, poems, performances, concerts, exhibitions, and more. In their numerous appeals, representatives of cultural organizations condemned Russia's full-scale invasion of the territory of independent Ukraine and, as a sign of solidarity with the Ukrainian people, ceased any cooperation with the aggressor. Thus, representatives of the Institute of Art and Theater of the Czech Republic (The Arts and Theater Institute) [3] and the Slovak Film Institute (The Slovak Film Institute) condemned the aggression of the Russian Federation against Ukraine and expressed solidarity with the Ukrainian people, called on all partners to follow the example and suspend any activity on the territory of the specified countries [15]. The Lithuanian Council for Culture expressed its support for Ukraine and stopped funding cultural projects related to Russia and Belarus [16].

In order to support the Ukrainian people, various international social actions are held in the countries of the world. For example, in Berlin, a significant number of citizens called on the West to stop trading energy resources with the aggressor country. Similar protests were held near the German embassy in Vilnius and the Georgian parliament. The participants of the actions projected on themselves all the horror that the world saw in Bucha and other Ukrainian cities that suffered from Putin's rashists. The March of Mothers took place in Krakow. With this peaceful march movement, Ukrainian mothers drew the attention of the society of the European cities in which they found shelter to the tragedy of children in Ukraine. During the March, the women held a stained scroll in their hands. It is a symbol of children's lives killed by the occupier, mutilated destinies, evidence of murders, injuries, abuses, insults and rape of children by rashists. The main idea of the march movement was "There are no other people's children! A child killed in Ukraine today is the same child who may be killed in Poland, Italy, France, or any other European country tomorrow". The head of the European Commission, Ursula von der Leyen, reported that 10.1 billion euros were collected in Warsaw at the global fund-raising event "Stand Up for Ukraine".

A commemoration of the children killed in Mariupol was organized in Helsinki. Attendees brought children's shoes to the Station Square, wrote the word "children" in different languages on the asphalt. In Estonia, they protested against the rape of Ukrainian women and children by Russian soldiers. Twenty women lined up in front of the Russian embassy in Tallinn with bags on their heads, hands tied and "blood" on their underwear. In this way, the organizers of the action tried to convey that the soldiers of the Russian Federation were raping and killing innocent women and children. An action in support of Mariupol was held in Vienna. There, the inscription "Children" in Russian was laid out with white bags to honor the memory of civilians who died during the aerial bombardment of the Drama Theater. In the capital of Austria, they protested against the sexual crimes of the Russian occupiers. The women put on homemade white dresses with traces of "blood" and lay down in the middle of the square. In Paris, people came to a rally against the Russian invasion of Ukraine. In the city of Perth (Western Australia), a large flag of Ukraine was sewn, on which everyone could leave wishes or words of support. After that, it went to Berlin, London, the USA, and other countries of the world. A small performance took place on the Alley of Stars in Los Angeles - girls and boys in yellow t-shirts and blue ribbons on their wrists danced an incendiary dance to the song "Oy u luzi chervona kalyna" ("Oy in the meadow red viburnum").

Representatives of the audiovisual arts also actively participated in the support of Ukraine. For example, France canceled the Russian film festival "From Lviv to the Urals", which featured films by Ukrainian director S. Loznytsia. The organizers stated that Ukrainian culture cannot have anything to do with Russian propaganda "matryoshka dolls". At the charity film marathon in Turkey, the Ukrainian films "Toloka", "Anna", and "On the own land" were shown to the audience in Ukrainian with Turkish subtitles. Also in March, the film "Fairytale" about the WAR" appeared online. The film collected a significant amount of facts and evidence of Russian aggression in the first weeks of the full-scale invasion of Ukraine. The film was created at the intersection of documentary and art cinema with a complete storyline. The screenwriter, editing director, voiceover, and producer of the film is bandura player, composer, founder of the modern bandura development project "Bandura Style" and the band "Spylyasty Kobzari" Yaroslav Dzhus.

In the literary field, over ten thousand poems from Ukrainians and foreigners were sent to the "Poetry of the Free" project within fifteen days [25]. It was created with the support of the Center for Strategic Communications and Information Security of the Ministry of Culture and Information Policy and the State Agency of Ukraine for Arts and Art Education. The participants sent poems about war, victory, and the strength of Ukrainian defenders in seven languages: Ukrainian, Russian, English, French, Polish, Lithuanian, and Belarusian.

The global campaign "Stand Up For Ukraine" at the call of the President of Ukraine V. Zelenskyi to raise funds in support of Ukraine and Ukrainians was effective. Performers and musicians from all over the world joined this initiative: singers Katy Perry, Celine Dion, Madonna, American actress Ellen DeGeneres, rock musicians Ozzy Osbourne, Lenny Kravitz, Irish rock band U2, and others. The legendary American band Metallica opened a fundraiser on the "All Within My Hands Foundation" page in support of Ukraine. The first installment in the amount of 500,000 USD was made the musicians of the band. The British rock group Pink Floyd released a new song in support of the Ukrainian people for the first time since 1994. The song "Hey, Hey, Rise Up" was released on April 8 and contained the vocals of Ukrainian musician Andrii Khlyvnyuk (Bumbox band). All funds from its sales were directed to humanitarian aid to Ukraine [34].

The Italian rock band Maneskin released the song #StandupforUkraine in support of Ukraine. The band called on the world to join them, help refugees and provide humanitarian aid to Ukraine. On May 2 in Bristol, the British band Portishead performed at a charity concert in support of Ukraine. It was the band's first performance in seven years [31]. All funds from the

sale of tickets were transferred to the "War Child" charity fund, which helps children affected by the war. Billie Eilish joined the "Stand Up For Ukraine" campaign and dedicated her song "Your Power" to Ukrainians [4].

Since the beginning of Russia's annexation of Crimea and the south-east of Ukraine in 2014, many representatives of the Ukrainian stage, actors, people of creative professions have steadfastly adhered to the opinion that "culture, art is outside of politics", "eternal values are outside of politics". Some of them continued to tour the Russian Federation, cooperated with Russian colleagues, participated in various projects, concerts, shows, sports competitions, and spoke for Russian sports clubs. Part of the Ukrainian society perceived it as banal "earning money", flirting with the aggressor. However, everything was limited to moral condemnation, the fall of the authority of these persons, the imposition of certain sanctions by the Ukrainian authorities. The situation changed radically with the beginning of the full-scale invasion of the Russian Federation into Ukraine in February 2022. The cultural diplomacy of domestic and foreign artists in the conditions of the Russian-Ukrainian war turned into a kind of cultural "front". Art projects have covered most of the countries of Europe, the USA, and Australia. In terms of the number of participants, these actions were individual, that is, they were joined by "stars" of the first 'magnitude', popular performers, participants in performances, group - with the participation of musical groups, collective concerts, the organization of various marches, protest actions, and international, with the sale of song tracks, the organization or, on the contrary, a ban on holding certain international art festivals. The interest of pop artists in participating in these projects was that they presented new songs, performed popular hits, specially organized concerts after the absence of long joint performances, organized funds to collect money to help Ukraine. In this way, they unobtrusively informed employees, connoisseurs, supporters of the art, music, and film industry about events in Ukraine, Russian crimes in Ukrainian cities. The importance of such actions is that people of art do not often enough directly involve themselves with certain political processes and politicians. Therefore, the words, actions, features of the presentation of their works art by artists played a decisive role for their audience, contributed to their better understanding of the situation in Ukraine.

Since the occupation of part of the territory of Ukraine by the Russian Federation in 2014, sports and politics in Ukraine have become even more closely integrated. Sport has acquired a certain political institutionalization in Ukrainian politics and society. Arguments that "sport is outside of politics" turned out to be unconvincing, because namely Russia refuted them at the highest sports level - it used the Olympic Games to cover up armed aggression: the so-called "War of 08.08" against Georgia in 2008, against Ukraine in 2014, 2022. Therefore, the continuation of Ukrainian athletes - public figures - of their professional careers in Russia has acquired a significant political connotation. In the conditions of a full-scale Russian invasion of Ukraine in 2022, sports diplomacy received a new stage of development. Its means proved to be effective in the internal politics of Ukraine and in the international arena. The internal policy refers to the following:

1) Public manifestation of own civic position by people from the field of sports. Active and former sportsmen took and are taking an active part in the defense of Ukraine in the ranks of the Armed Forces of Ukraine, the Military Academy. Ukrainian and foreign mass media constantly inform about this. So, former basketball player O. Volkov went to war at the age of 57 [32]. This was reported by his teammates, who posted a photo with words in support of him and Ukraine. It should be noted that Oleksandr Volkov was born in Omsk (Russia), played in the NBA for "Atlanta", and later was the playing president of BC "Kyiv". It is important that many athletes, for example, world boxing champions O. Usyk, V. Lomachenko specifically returned to Ukraine to take up arms. This earned respect from their fans, future rivals [21].

Athletes were socially active in social networks. They installed the Ukrainian flag on the avatar; deleted the Russian athletes from their friends, posted posts, photos, and informational materials about events in Ukraine.

Ukrainian sportsmen and coaches prematurely terminated the current contracts with the clubs of the aggressor country. This is what most of the Ukrainian football players who played in the Russian Premier League did. For example, the assistant head coach of FC Dynamo (Moscow) A. Voronin left Russia immediately after the attack of the Russian army on Ukraine. After leaving for the Federal Republic of Germany, he publicly expressed his civic position, critically explained the actions of the Russian authorities and the attitudes of Russians. Voronin called on Germany to help Ukraine in the war with Russia: "stop this son of a bitch Putin, help the refugees and send weapons so we can defend ourselves" [6].

Athletes publicly expressed their opinion about the events in Ukraine, commented on them. Thus, the legendary ex-footballer and coach of Dynamo (Kyiv) and the national team of Ukraine Y. Sabo criticized the President of Hungary V. Orban and the country's government, which supported the Russian Federation in the war with Ukraine. He refused to communicate with the Hungarian press, and stated that he was now ashamed of his Hungarian origin [5].

"Stars" of domestic sports individually and collectively appealed to Russian athletes, the people, officials, and the President of Russia. The topics were different: an invitation to come to the meeting, "there is a hall for you, yours has been prepared it" (Olympic champion Zh. Beleniuk); calls to close NATO's sky over Ukraine (captain of the Ukrainian national basketball team A. Pustovyi), to influence V. Putin's policy, with a call to oppose the actions of the Russian authorities (world, European, Olympic Games champion gymnast L. Pidkopaeva); stories about the experienced Russian occupation (footballer V. Vashchuk). Thus, sportsmen became the advocates of social sentiments and morals. The Klitschko brothers, ex-boxers and world champions, launched a wide-ranging information campaign. Volodymyr Klitschko defends the Ukrainian land in the ranks of the Kyiv City Council, whose mayor is his older brother Vitaliy. The Klitschko brothers each gave several interviews and broadcasts live to foreign media, telling the world the truth about Russian atrocities in Ukraine. Testimonies of athletes about the genocide of Ukrainians will be included in the materials for the International Criminal Court.

On the international arena, sports diplomacy in support of Ukraine also acquired original manifestations. The world-famous sportsmen expressed their support for Ukraine and solidarity with its people, appealed to Russian President V. Putin to end the war. Let us name just a few of them: the "king of football" Pele, "Iron Fist" M. Tyson, the best hockey player of all time V. Gretzky, athlete and politician "Terminator" A. Schwarzenegger. The outstanding Italian coach F. Capello refused to communicate with journalists of the aggressor country.

Participation and victories of Ukrainian athletes in international competitions are very important. The President of Ukraine V. Zelenskyi, representatives of the state authorities understood the importance of sports for Ukraine in the conditions of war. Therefore, the government allowed domestic athletes to travel abroad in order to prepare for performances and participate in sports competitions. The collective characteristic of many victories of Ukrainian athletes at international competitions was the duel of professional boxers in the super heavyweight category. On August 20, in Jeddah (Saudi Arabia), O. Usyk, who was born in Crimea, in Simferopol, won a rematch against E. Joshua. The Ukrainian defended the title of world champion according to the IBF, WBA Super, IBO and WBO versions, and also won the vacant belt of the magazine "Ring". After the match, which lasted all 12 rounds, both boxers raised the flag of Ukraine, and Oleksandr wrapped himself in it. After the announcement of the results of the judges, E. Joshua in his speech noted the hard work done by O. Usyk at a time when the war is going on in his country. For his part, O. Usyk dedicated

his victory to Ukraine, its Armed Forces, all those who defend the state, all Ukrainians. It is known that due to the full-scale invasion of Russia into Ukraine, the battle could be cancelled, because O. Usyk joined the ranks of the territorial defense. However, at the end of March, he agreed to a rematch and left Ukraine to prepare for the fight. He was encouraged to do so by the Ukrainian military, whom he visited in the hospital. Let us note that together with the preparations for the rematch, Usyk's team founded the "Usyk Foundation" charity fund to help the army and Ukrainians who suffered from Russian aggression. Especially for the fight, the boxer started a herring (hairstyle) and a Cossack mustache, ran pages on social networks in Ukrainian or English, and communicated with journalists exclusively in Ukrainian. He also bought the rights to broadcast the rematch so that Ukrainians could watch it for free [40]. At the final press conference before the fight, Oleksandr came in Ukrainian uniform (embroidered jacket and trousers) and sang "Oy u luzi chervona kalyna" ("Oh, in the meadow is a red viburnum"). During the match, he wore sports shorts in blue and yellow colors. Such actions of the boxer were perceived ambiguously by the world public, but they believed that this way he exerted psychological pressure not only on his opponent, but also on the enemy of Ukrainians - the Russians. It is not by chance that the Russian mass media tried to compromise and humiliate the boxer. Sports victories, public activities and behavior of O. Usyk formed a recognizable brand around his name in the world, which is a kind of reminder of Ukraine and the war started by Russia.

Ukrainian legionnaires - sportsmen who perform abroad - joined the support of Ukraine in various countries of the world. Among the forms of their activity, we highlight the following:

1. Informing the world public about events in Ukraine. Ukrainian athletes have repeatedly appealed to Russian athletes - Ukrainians by origin and many of whose family members live in Ukraine to show their citizenship. This could save hundreds of human lives. They wanted to activate the national feelings of famous athletes in other countries of the world. For example, O. Bayul, the first Olympic champion in the history of independent Ukraine, organized rallies in support of Ukraine in the USA and volunteered [26]. World boxing legend Volodymyr Klitschko during his visit to Berlin, spoke with high-ranking German officials, thanked them for their help to Ukraine, and talked about the genocide of Ukrainians by the Russian army. He appealed to the President of Germany with the hope that his visit to Kyiv will take place as soon as possible. The most recognized football player of Ukraine, the best football player of Europe in 2004 A. Shevchenko and the group "1+1 media" with the support of the Ministry of Youth and Sports of Ukraine launched a company with a call to boycott Russian athletes. On the initiative of the President of Ukraine, he also became the first ambassador of "UNITED 24" - a platform for collecting money for Ukraine.

D. Beckham originally supported Ukraine. The world football legend handed over his Instagram account to the Ukrainian doctor I. Kondratova for a day. She published several short stories in which she showed how the Kharkiv Regional Perinatal Center works in the conditions of military operations [13]. The Ukrainian woman also secured a link by which D. Beckham's subscribers (71.4 million people) were able to send funds to the UNICEF fund. Thus, the British football player, the owner of FC "Inter" (Italy), showed a large audience what is happening in the hospitals of the bombed-out Kharkiv. Even earlier, Beckham and his wife Victoria donated 1.3 million US dollars to help Ukrainian children.

A vivid protest against Russia's war crimes in Ukraine was initiated by Lithuanian swimmer Ruta Meilyutite. The athlete swam in the lake, which is located opposite the Russian embassy in Vilnius. The organizers of the action painted the water in red - a symbol of responsibility for Russia's war crimes. Ruta explained that this performance is "a call to action in support of the Ukrainian people against whom Russia is committing genocide". She criticized the international community for

insufficiently strict sanctions against Russia and emphasized the need to support Ukraine informationally and financially [36]. Let us pay attention to the sporting achievements of R. Meilyutite: she is the Olympic champion (2012) and world champion (2013) in the distance of 100 m breaststroke and the only winner of the medal of the Olympic Games in swimming in the history of Lithuania. Therefore, her "bloody swim" was quite resonant and attracted the attention of the world public.

2. Statements and actions of naturalized sportsmen who played for national teams of Ukraine. After K. Beh, O. Moskalenko, and O. Abramova did not publicly condemn Russia's war against Ukraine, the Ministry of Youth Affairs and Sports of Ukraine made a decision to exclude naturalized Russian women from the Ukrainian biathlon team. On the other hand, A. Rasskazova, who changed her Russian citizenship to Ukrainian, and since 2018 represents the Ukrainian national biathlon team, spoke negatively about the war, and her colleague D. Blashko, a naturalized athlete from Belarus, volunteered and sent humanitarian aid [9].

3. Assistance of the Armed Forces of Ukraine from Ukrainian athletes and their colleagues from abroad. For this purpose, athletes interacted individually and collectively, created volunteer associations, groups, funds with the involvement of teammates, coaching staffs, and fans. All this was covered on the websites of sports clubs, the cities they represented, on the pages of the national press. Ukrainian legionnaire of the Spanish FC Fuenlabradi, R. Zozulya, with the help of volunteers, collected bulletproof vests and helmets for defenders of Ukraine. On his Facebook page, he wrote: "It seems that Ukrainian volunteers have already made empty all European stores with military ammunition, but this does not stop us - we will find everything necessary for our defenders in any corner of the planet" [2].

4. Athletes selling their awards at charity auctions and transferring the proceeds to the needs of Ukraine. Ukrainian boxer I. Redkach auctioned gloves with the autograph of the legendary Filipino boxer M. Pacquiao [33]. The story of the auction of the gold medal of the U-20 World Championship of the forward of Shakhtar Donetsk and the national team of Ukraine D. Sikan is illustrative. Fans of FC "Hansa" (Rostock, FRG) supported the initiative of D. Sikan, who plays for the club on loan. They started fundraising to win the auction for the player's lot. In just a few hours, the Germans collected the sum of 20,000 euros, after which they set the goal of collecting even more. As a result, the fans of "Hansa" bought a medal, which they will return to the owner, or exhibit in the club museum [37]. As a result, the amount of funds raised at the auctions significantly exceeded the starting prices, and the offered lots were bought by citizens and clubs from other countries of the world. This increased the information resonance about Russia's military aggression against Ukraine.

The leading Ukrainian football clubs held charity matches, the collection of which was transferred to the needs of the Armed Forces of Ukraine, refugees, and children. FC "Dynamo" (Kyiv) and "Shakhtar" (Donetsk) played friendly matches in April - May as part of a charity tour across European countries. The purpose of the tour was to promote the image of clubs and national football in order to draw attention to what is happening in Ukraine [17]. Ukrainian clubs and their rivals used all proceeds from tickets and donations to support Ukrainians who suffered from the Russian attack. These matches generated lively interest and powerfully informed the world community about the war. So, "miners" played matches in special T-shirts. Instead of the names of the players, the names of ten Ukrainian hero cities that fiercely resisted the Russian troops were written on them. Certain political "misunderstandings" arose during the charity tour. Dynamo refused to spar with FC Steaua (Bucharest). This happened after the owner of the Romanian club D. Bekali in an interview with "RomâniaTV" called the Ukrainian defenders of Mariupol - the "Azov" regiment a "Nazi group" [1]. "Dynamo" management considered such words of the owner of "Steaua" "inadequate" and unacceptable [35]. On the eve of Dynamo's game with Swiss "Basel", the popular daily French newspaper

"L'Equipe" ("The Team") published a large article about the Ukrainian club. It consisted of three parts: "The legend of the "hook of death", "Historical rival of Moscow", "Dynamo" Kyiv, a club at war" [35]. The first of them was about the "match of death" - a match between the local team "Start" and the German team "Flakelf" in Kyiv in 1942, the second - about the confrontation in the times of the USSR between "Dynamo" and Moscow "Spartak". The third was devoted to the modern realities of the existence of the club and the match of "Dynamo" in Basel. Let us note that the mass media of the Russian Federation provided information that Ukrainian clubs hold "friendly", "charity" matches, but did not specify their reason and purpose. They placed these materials in the "Sports" section. Instead, the Ukrainian mass media presented them under the heading "Special topic: Russia's war against Ukraine". As the Croatian football director of Shakhtar Donetsk club D. Srna noted, he "continues to read articles in the European press that Russia invaded Ukraine 50 or 60 days ago". This is a false statement, because "they appeared in Ukraine in 2014, when we lost our houses, the stadium and our people" [12]. Thus, sports diplomacy has become part of the information war, an effective means of combating Russian propaganda fakes.

5. Ukrainian symbols, national elements in the design of stadiums, team uniforms, the behavior of spectators in the stands during these matches. Among the spectators in the stands, there were many Ukrainians - wage earners, refugees, which gave them an opportunity to distract themselves from the war. They displayed original pro-Ukrainian posters and banners. The performances initiated and conducted by Ukrainian artists during these matches were also on the theme of the war in Ukraine. So, during the break between halves in the match "Dynamo" – "Borussia" (Dortmund) they showed an artistic performance with the participation of the Ukrainian singer of Crimean Tatar origin Jamala. Dressed in a sweatshirt with the inscription "Stop the genocide in Mariupol", she performed the a cappella prayer song "Ave Maria". The iconic song "1944" for every Ukrainian was also played, which in 2016 brought Jamal a victory in the music competition "EuroVision 2016" [8].

During the war, athletes turned from public figures into politically significant figures. Ukrainian athletes became an important example that motivated others. The events of the Russian-Ukrainian war forced many Ukrainian athletes to clearly formulate their civic position, to reconsider certain life and sports values. That is why the sports diplomacy of Ukrainian athletes, coaches, clubs, and federations in the conditions of the war turned out to be resonant and effective. Sports representatives actively informed, commented on events in Ukraine, organized and participated in protest actions against the war and crimes of the Russian troops. In general, the forms of expression of sports diplomacy were quite original: from performances in sports uniforms in the colors of the national flag of Ukraine and statements during awards at sports competitions, fundraising, providing humanitarian aid, sheltering refugees and victims, and direct participation in the protection of the territorial integrity of Ukraine. The active civic position of the Ukrainian legionnaires was supported by their friends, players, fans of the clubs they represent, politically conscious citizens of the countries. All this was widely covered by domestic and foreign print and electronic press, social networks. Another feature of sports diplomacy during the war was that it reached a large audience. These are users of various gadgets, television, radio, and an audience of thousands, and in total, millions of spectators in the stands of sports arenas. Thus, they were directly involved in sports diplomacy, continued to bring it to their families and society. In addition, sports diplomacy was closely integrated with cultural diplomacy. We mean the organization and holding of thematic performances, a well as performances of famous performers, popular songs, band concerts, and their broadcasts. All this proves the expediency of using elements of sports diplomacy in international relations.

4 Conclusion

The publicity of artists and athletes is due to the fact that thanks to their creative and sports achievements, they are recognizable and authoritative in society. Therefore, society reacts sensitively to their statements, actions, and deeds. During the war, musicians, artists, and athletes turned from public figures into politically significant figures. The armed invasion of Russia on the territory of Ukraine and the subsequent Russian-Ukrainian war forced Ukrainian artists and athletes to show their clear civil position regarding these events. Some of them became an example of patriotism, sacrifice, mobilization of efforts for the needs of Ukraine and its people. Many of them lived abroad for a significant period of their lives and returned to defend the state. The events of the Russian-Ukrainian war forced many Ukrainian artists and athletes to clearly formulate their civic position and reconsider certain life values.

The authors argue that no war in the 20th and 21st centuries caused such a wave of protest moods among people of art and sports regarding the violation of the norms of international law by one of the parties to the conflict, disregard for moral values and human life. They initiated, tested and successfully proved the effectiveness of new tools and means of cultural and sports diplomacy. The universality of language and the manifestation of this diplomacy in international relations, accessibility and receptivity in society, a large audience of viewers and listeners, combined with the creative approach of its participants in response to the threats and challenges of the modern world order led to the development of its new vectors. The effectiveness of its forms and methods lies in the fact that they: 1) helped relatively quickly inform the public of the countries of the world about Russia's aggression in Ukraine; 2) recognized artists and "stars" of sports willingly joined it; 3) initiated by them, their foreign colleagues, refugees, citizens of other countries, public actions, performances, football matches have become widely spread in Ukraine and abroad; 4) reached a large audience of various ages; 5) ensured the receipt of funds for the needs of Ukraine to charitable funds; 6) contributed to the establishment of a positive image of Ukraine and Ukrainians in other countries. The Ukrainian cultural and sports community needs more information about its initiatives, actions and tools to support Ukraine, particularly abroad.

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MEANS AND METHODS OF OBJECTIZATION OF EMOTIONAL-EVALUATIVE SEMANTIC PLANS OF LEXICAL UNITS IN THE UKRAINIAN LANGUAGE

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Abstract: The spectrum of emotional and axiological meaning plans of expressives is quite wide. It is based on the following main features of emotional lexical units that distinguish them from neutral lexical units: organic connection with non-verbal fragments of the national picture of the world; the impact of scientific and technical, socio-economic and cultural changes taking place in society; the primary role of the human factor; belonging to a specific lexical-semantic subsystems. Lexical expressions have a special status in the modeling of speech. Modern linguistics considers expressive vocabulary as a mandatory and important component of the system of expressive (figurative) means of texts. Lexical expressions take over the function of an intermediary between the denotative world (objective reality, the environment) and the inner world of a person, the range of his emotional states, intentions, between language and thinking. The analysis of lexical expressions through the prism of their stylistic functions in the structure of the text motivates the relevance of the proposed study. Its purpose is to reveal the stylistic functions of expressives in speech and in texts, to characterize the spectrum of emotional and evaluative semantic plans.

Keywords: Semantic plans, Emotional and evaluative components, Lexical units, Ukrainian language.

1 Introduction

Already at the beginning of the 19th century, V. von Humboldt focused the attention of linguists on the fact that language, as a result of active human activity, is thoroughly permeated with emotions, its sensory sphere and evaluative dimensions. The scientist characterized speech activity not only as a means of communication, mutual understanding, and information exchange, but also as a special and real world that combines external reality with internal intentions, psycho-emotional reactions and states, the entire inner world of a person [8]. However, for quite a long period, linguists did not pay due attention to the study of the means and methods of verbalization of the emotional and axiological spheres of human life, in particular, to the study of that subsystem of linguistic units that serve as means of expression, transmission, designation, and description of the inner world of a person. Means and methods of verbalization of sensory and axiological spheres of human activity have not been sufficiently researched until now, and the long-term ignoring of the problem by linguists, based on an anthropocentric approach to the study of linguistic phenomena, is rightly qualified as a "linguistic error" [15, p. 35]. Against the background of the development of psycholinguistics and modern war events in Ukraine, there is evident attention to studies devoted to the means and methods of verbalization of psycho-emotional reactions and states of a person, intra- and extra-lingual factors causing a departure from purely logical laws of speech activity, reorientation to the speech sphere, where sensory and axiological zones dominate. Emotive lexical units represent subjective vision, perception and ethnically motivated or individualized assessment of persons, any fragments of the environment. Modeling of emotive-evaluative meaning plans of lexemes correlates with the components of their semantic structures - denotative and connotative components, which is the basis for distinguishing proper nominative (neutral) and emotive-evaluative lexemes. All of the above motivates the relevance of the proposed article.

The representatives of the European Neo-Humboldtism (L. Weisgerber, G. Ipsen, P. Hartman, etc.) elaborated and continued the Humboldt' postulates. The beginning of the 20th century in foreign linguistics was marked by the development of

a new direction called "idealistic linguistics" or "aesthetic school'. It envisaged an active study of the stylistic, expressive, and pictorial functions of language units at different levels, an emphasis on the dominance of the expressive and aesthetic functions of language in communicative activity, on the significance of the role of the human "spirit" in speech acts, in the processes of verbalization of the inner world of a person [5, p. 143].The emergence and development of the new direction is qualified as a peculiar reaction of its representatives (K. Fossler, the head of the aesthetic school, B. Croce, H. Hatzfeld, L. Spitzer, F. Schurr, etc.) to the insufficient attention of linguists to the problem of the human factor in speech activity personality and "shortcomings of the theoretical and practical activities of the young grammar school" [5, p. 143].

Anthropocentrism, which accumulated psycho-emotional, physical, sociological, cultural, and ethnic factors, actualized the discursive activity of the individual, which is in an inextricable connection with the surrounding world, fragments of the environment, language, time and space, became the basis of modern linguistic stylistic research. The anthropocentric approach actualized existential motives, focused on the individual who acts, reveals an individual worldview and understanding of the world, own emotions, feelings, assessments, and influences the course of events. The Ukrainian linguistic personality has a distinct Ukrainian-scientific worldview, national-cultural self-identification, and linguistic stability, which is reflected in the national linguistic picture of the world [6].

Functionalism became another important basic principle of linguistic stylistic studies. It actualized the study of linguistic phenomena "in the real time-space functioning of the language", made it possible to significantly deepen its knowledge and understanding through "additional stylistic nuances, connotations, meaning overtones, which are distinguished by linguistic signs, constitute an open system determined by the cultural and educational level of the speakers" [7, p. 25].

In modern linguistic-stylistic studies, emotionally valuable lexical units are qualified as a mandatory and important component of the system of expressive and figurative means of human speech activity in general and the speech of artistic and journalistic texts in particular. Emotionally valuable lexical units perform the function of an intermediary between the denotative world (objective reality) and the inner world of a person, the range of his sensory intentions, states, and axiological dimensions; between language and emotions [2, p. 27].

The problems and peculiarities of the functioning of the Ukrainian emotive-evaluative (expressive) vocabulary in artistic contexts were reflected in the works of I. Hrytsyutenko, S. Yermolenko, V. Ilyin, V. Kalashnyk, M. Kochergan, A. Moysienko, L. Pustovit, N. Sologub, L. Stavytska, V. Chabanenko, I. Cherednychenko, and other scientists; however, the problems of lexical semantics - modeling, verbalization and objectification of emotive-evaluative meaning plans of lexical units in the Ukrainian language - have been on the periphery of linguistic-stylistic scientific studies for a long time.

The modern stage of the development of Ukrainian linguistic thought is marked by the shift of the focus of research attention from traditional approaches to the problems of the intersection of the spheres of scientific knowledge with ethnopsychology, psycholinguistics, linguistic culture, etc., related to linguistics (works by S. Yermolenko, V. Zhaivoronka, O. Selivanova, etc.).

In the works of the Polish linguist Vezhbitska, the study of the verbalization of the category of emotionality through the prism of the analysis of emotional concepts is updated. Currently, single emotional concepts and their opposing pairs are actively being studied on the material of many languages. Ukrainian

linguists have proposed actual ways of categorizing emotional reactions and states of a person, his inner intentions, ethnically marked axiological dimensions of fragments of the national picture of the world, and are implementing various aspects of scientific research on the material of Slavic and non-Slavic languages. Among them, linguistic and cultural (S. Yermolenko, V. Zhaivoronok, I. Golubovska, Zh. Kolois, M. Bagan, etc.), semantic (O. Taranenko, T. Kosmeda, N. Boyko, O. Borisov, L. Kotkova et al.), psycholinguistic (V. Zhaivoronok, O. Selivanova, T. Kosmeda, etc.), functional (N. Guyvanyuk, V. Kalashnyk, O. Taranenko, A. Moisienko, V. Chabanenko, T. Khomych and etc.) approaches are distinguished. The expressive potential of phraseological units as verbalizers of emotional reactions and human states, a number of axiological opposites of phrases (Y. Pradid, M. Gamzyuk, G. Demydenko, etc.), tropes as representatives of emotional semantic plans (V. Kalashnyk, O. Taranenko, A. Moysienko, L. Kravets, etc.), emotional and sensory semantic components in the structure of a lexical unit (O. Taranenko, N. Boyko, T. Khomych), and others are revealed and tracked.

The purpose of the article is to reveal the specificity of means and methods of objectification of emotional and evaluative semantic plans of lexical units in the Ukrainian language.

2 Materials and Method

In the research, philosophy and psychology are defined as the main methodological principles, which are distinguished in modern linguistic stylistics. They are based on postulates formulated by scientists: 1) "knowledge of a certain people through its language, and knowledge and understanding of a language through knowledge of its creator and bearer - the people" [18, p. 348]; 2) Ch. Stevenson saw the specificity of axiological meaning in the use of language signs with a specific purpose; their dominant function is to influence the addressee, to cause different psychological reactions in him [17, p. 129]; 3) "when talking about anything, a person involuntarily talks about himself" [13, p. 715].

During the research, a complex of methods and techniques was used, the choice of which was determined by the subject of scientific analysis and the set tasks. In order to determine the key concepts of emotional and axiological semantics, a systematic review of linguistic scientific literature devoted to the linguistics of emotions, psycholinguistic analysis of the semantics of lexical units, and functional aspects of the studied material was carried out. The main scientific propositions are summarized on the basis of an interdisciplinary approach to the analysis of emotional and axiological semantics of lexical units, in the context of the theory of the linguistics of emotions and from the point of view of the dominance of the expressive function in the speech activity of communicators.

In the process of analysis, the method of linguistic observation was used - to determine the language level (phonetic, morpheme, morphological, lexical, semantic, syntactic, stylistic - word level or text level) of objectification of emotional and evaluative semantic plans of lexical units; the method of definitional analysis, which involves the detection of: 1) the composition of lexemes, which contain information about emotional reactions and states of a person in their dictionary interpretation; 2) classes of words with lexicographically fixed emosemes and axiosemes in the semantic structures of lexical units; 3) thematic groups of lexemes with explicit/implicit actualization of emosems and axiosems of positive or negative semantic plans in a specific dictionary definition; finding out whether emosemes and axiosemes are recorded in the definitions of direct or figurative meanings; whether cases of contextual modeling of emotive-evaluative semantic plans of lexical units are confirmed in explanatory dictionaries (in dictionary definitions of lexemes, etc.); descriptive method (to characterize the specificity of means and methods of objectification of emotional and axiological semantic plans of lexical units of the Ukrainian language); method of component analysis (to identify the features of the semantic structures of lexical units containing emotional and

evaluative components (sems) in a dominant position); method of contextual analysis (to determine methods of modeling emotional and evaluative semantic plans in usually neutral (inexpressive) words under the influence of connections, unexpected combinations with lexemes of other ranks within specially organized contexts), elements of quantitative analysis, etc.

The research is based on factual material collected from explanatory dictionaries of the Ukrainian language, artistic works of Ukrainian writers of different time limits, in particular, contexts that contain lexical units with expressive formally expressed (explicit) and internal emotional and axiological semantics, have specific means of verbalizing emotions and the axiom and factors contributing to the contextual objectification of the connotative components of the semantic structures of lexemes.

3 Results and Discussion

One of the key propositions that dominates Vezhbytska's concept of emotionality is the thesis about the probability of establishing connections between language and the national character of an individual. The researcher takes as a basis the reproduction of the inner world of a person, proposes to reveal its features based on the specificity of the national linguistic picture of the world [19, p. 293]. In this context, we note that in the functioning of the Ukrainian language in recent decades, there have been changes of a communicative and pragmatic nature, which led to the strengthening of the psychological rejection of the "wooden" ("oak") language (langue de bois), its clichés and rational standards. As a result, there is activation and replenishment of the stock of different levels of emotional and evaluative (expressive) tools, which have always been considered representatives of such important features of the Ukrainian mentality as emotionality, humor, a somewhat ironic view of oneself and life. Over the centuries, these features have performed a "kind of rescue-healing function" (V. Rusanivskyi), contributed to improving and maintaining the nation's mental health.

The objectification of emotive-evaluative semantic plans of lexemes can be observed at different levels of the language system - phonetic, morpheme (word-forming), morphological, lexical, semantic, syntactic, stylistic, at the level of the sentence and at the level of the text.

The methods (mechanisms) that ensure the realization of emotive-evaluative values of lexical units of the Ukrainian language are based primarily on phonetic, morphemic (word-forming) and lexical-semantic contrasts. They are the result of comparison of materially expressed (formal) indicators (means) or contextually determined emotional and evaluative meaning plans of lexemes with their neutral counterparts. For emotionally and evaluatively marked lexical units, a violation of the phonetic laws of the Ukrainian language is characteristic: the lack of balance between vowels and consonants, their repetitions and specific combinations that ensure the unusualness (expressiveness) of the sound design of the word. The unusual sound (phonetic objectification of emotionally and evaluatively marked semantic plans) of lexical units actualizes a number of basic (key) sems: 'emotionality', 'valuability' (kowtyoba, chalamidnyk, khalepa, khaltura, pribambasy, shusyukati, mymryty, burkotaty, varnyakati) (*pharynx, tramp, trouble, hack, gadgets, lisp, mutter, purr, snarl*) and auxiliaries: "figurativeness" (*soldafonskyi, vidmuvaty, vidbrykuvatysia*- to refuse something) (*martinet, witching, kicking*); "intensity" of a sign or action (talalai, babakhnuti, lushparyty, tarabanyty) (*bang, peel, rattle*), etc.

Traditionally, in the Ukrainian ethnic consciousness, the following sounds are considered as "unpleasant": 1) consonants [x], [ш], [ж], which associatively explain the basic connotative semes- 'emotionality' and 'appreciation' with a minus sign: *хавчати, хакати, халабуда, халупа, хам, хамаркати, хамло, хамлюга, хандра, харамаркати, харапудитися, харциз,*

хверцювати, хвиськати, хвища, хвойда, хиряк, хлистати, хлюст, хлющати, хльорка, хльосткий, хмикати, хникати, хоркати, хтокало; шамкати, шамотіти, шварготіти, швиргати, шарахатися, шваби (німці), шпиняти, шкабарчати, шарлатан, шарпак, шахрай, швендя, шпацірувати, шекерявити, нишпорка, etc. (khavchaty, khakaty, khalabuda, khalupa, kham, khamarkaty, khamlo, khamliuha, khandra, kharamarkaty, kharapudytysia, khartsyz, khvertsiuvaty, khvyskaty, khvyshcha, khvoida, khyriak, khlystaty, khliust, khliushchaty, khlorka, khlostkyi, khmykaty, khnykaty, khorkaty, khtokalo; shamkaty, shamotity, shvarhotity, shvyrhaty, sharakhatysia, shvaby (nimtsi), shpyniaty, shkabarchaty, sharlatan, sharpak, shakhrai, shvendia, shpatsiruvaty, shekeriavyty, nyshporka); 2) combination of "unpleasant" consonants with "unpleasant" vowels [u], [y], [e] (according to V. Levytskyi): *жебоніти, жевжик, жевжикуватий, живодер, живоїд, живолуп, житуха, жерти, хиряк, відчикрижити, шугати, шельма, жеретія, чикилдиха (горілка), хильнути* (zhebonite, zhevzhik, zhevzhikutii, zhivoder, zhivoder, zhivolup, zhituha, zherty, hiryak, odchykryzhity, shugat, shelma, zheretiya (a viper that climbs trees), chikildiha (vodka), khylnuti); 3) repetition of the same syllables: *абракадабра, бабахати (бабахнути, бабахнутися), бебехнути (бебехнутися), видовище, гергепа, цигикати, хихикати, довгоголовий, змикутити, викараскатися, гоготати (to laugh loudly, uncontrollably), вишпетити (swear a lot), затирити, нашкварювати, ошалапутити (to deceive), канюка, нерозторопний, потирити (bear), талалай, таратайка, татарва, татакати, тинятися, тутукати, розкокошитися (begin to show ridiculous arrogance, hot temper; to heat up), розкумекувати, тарарам (quarrel scandal), прибамбаси, улюлюкати, утирити (to sreal), утиритися, тетеріти (to be suddenly embarrassed, confused), ошелешений, чимчикувати, шушукатися* (abrakadabra, babakhaty (babakhnuty, babakhnutysia), bebekhnuty (bebekhnutysia), vydovyshche, herhepa, tsyhykaty, khykhykaty, dovhoholovyi, zmykytyty, vykaraskatysia, hohotaty, vyshpetyty, zatyryty, nashkvariuvaty, oshalaputyty, kaniuka, neroztoropnyi, potyryty, talalai, tarataika, tatarva, tatakaty, tyniatysia, tutukaty, rozkokoshytysia, rozkumekuvaty, tararam, prybambasy, uliuliukaty, utyryty, utyrytysia, teterity, osheleshenyi, chymchykuvaty, shushukatysia); 4) repetition of one consonant in combination with different vowels: *вибевкати, втелющитися, гателити (engorge), гуготіти, гугнити, зазіхати, збабіти, зверзти (to say nonsense), чучверіти (to become clumsy, crusty, rough)* (vybevkaty, vteliushchytysia, hatelyty, huhotity, huhnyty, zazikhaty, zbabity, zverzty, chuchverity); 5) repetition of one vowel in combination with different consonants: *агакало, балагурити, баламут, барахло, валандатися (to walk idly, loiter), втелепати (to understand), втеребити (to insert), галакати (to speak loudly), гороїжитися* (ahakalo, balahuryty, balamut, barakhlo, valandatysia, vtelepaty, vterebyty, halakaty, horoizhytysia); 6) the presence of "unpleasant" consonant compounds in the phonetic design of the word, which are associatively connected with the pejorative meaning of the lexical unit.Sound combinations with the vibrant [r] and sound combinations: [br] - *рашист, бракороб, бренькати, бабратися (to do something slowly), брехати, бридкий, бридота, бришкати (to behave swaggeringly; brag, boast); брутальний, бряжчати (to play a musical instrument clumsily or carelessly), брязнути (to throw with force, hitting something,* etc. (rashyst, brakorob, brenkaty, babratysia, brekhaty, brydkyi, brydota, bryshkaty; brutalnyi, briazhchaty, briaznuty); [dr]: *дразливий, драконівський, драла (швидко тікати куди-небудь), драб (діал. обідранець, босяк), драпати (швидко відступати, залишати яку-небудь територію), драпіжка (здирство, грабіжництво), дрейфити (боятися труднощів, небезпеки; лякатися, розгублюватися), дременути, дренчати(дренькати), дренькіт, дризнути (швидко побігти, утекти або сильно вдарити кого-небудь), дріботіти (говорити дуже швидко, скоромовкою),* etc. (drazlyvyi, drakonivskyi, drala, drab, drapaty, drapizhka, dreifyty, dremenuty, drenchaty (drenkaty), drenkit, dryznuty, dribotity).

Thematically, ignoring sound aesthetics and the experience of perceiving the unpleasantness of lexical units in the Ukrainian language is recorded in the phonetic forms of words that convey deviations from normative speech or reproduce sound effects accompanying walking, certain dynamic, sudden (unpredictable, unexpected) movements, actions, etc.: *бовкати, булькати, бурчати, варнякати, гарикати, гаркавити, гугнявити, джеркотати, дзенькати, бевкати, жебоніти, гелготати, лящати, мурмотати, мурмотіти, ляскати, мимрити, миркати, тріскотіти, харамаркати; чалапати, шкандибати, човгати, шастати, дотарабанити (to reach), брьохатися; гехати, гатити, хльостати, ляскати, бебехнути (throw with force), бемкати, беркицяти (suddenly fall, overturning), бехати (to fall hardly; to hit hard), to roar (quickly move forward), хлопати, брязкати, бацати, чвакати, цмакати, теленькати, дзенькати,* etc. (bovkaty, bulkaty, burchaty, varniakaty, harykaty, harkavyty, huhniavyty, dzherkotaty, dzenkaty, bevkaty, zhebonity, gelgotaty, liashchaty, murmotaty, murmotity, liaskaty, mymryty, myrkaty, triskotity, kharamarkaty; chalapaty, shkandybaty, chovhaty, shastaty, dotarabanyty, brokhatysia; hekhaty, hatyty, khlostaty, liaskaty, bebekhnuty, bemkaty, berkytsaty, bekhaty, khlopaty, briazkaty, batsaty, chvakaty, tsmakaty, telenkaty, dzenkaty).

An indicator of phonetic objectification of emotional and evaluative meaning plans of lexical units can also be their novelty, exoticism (often in combination with foreign phonetic design) and even the incomprehensibility of the meaning for individual speakers of the language in a certain period of its development: *consulting, broker, establishment, impeachment, teenager, distributor*, etc. Let us compare with Stevenson's thoughts: "Sounding a word by itself can physiologically be able to express certain emotions, and this supports the skills formed in the process of use" [17, p. 130].

The phonetic objectification of emotional and evaluative meaning plans of lexical units is traced in artistic contexts, which are characterized by the use of sound symbolism. Its emergence is due to the interaction of different types of sensations -acoustic, motor, visual, etc.: *"Гармидер, галас, гам у гаї'"*"Harmider, clamor, hum in the grove" (T. Shevchenko); *"Чути: кру! кру! кру! В чужині умру,/ Заки море перелечу,/ Крилонька зітру"* "Hear: cool! cool! cool! I will die in a foreign country,/ I will fly across the sea,/ I will destroy my wing" – the vowel U is a symbol of death, grief (B. Lepky); *"Осінній день, осінній день, осінній! О синій день, о синій день, о синій! Осанна осені, о сум! Осанна. Невже це осінь, осінь, о! – та сама'"*"Autumn day, autumn day, autumn day! Oh blue day, oh blue day, oh blue! Hosanna to autumn, oh sadness! Hosanna Is it autumn, autumn, oh! - the same" (L. Kostenko).

Similar to sound-symbolic words in terms of their functional load, in artistic contexts, there are onomatopoeic lexemes and exclamation derivatives, which also appear as atypical, unusual against the background of neutral-nominative (phonetically unmotivated) *кудкудакати, нявкати, кахкати, кишкати, тпруськати (drive the cat away), рохкати, хрюкати, цявкати, айкати, агакати, гейкати, гетькати, пхекати, тюкати, окати, фукати, акати, ехати, говкати, кукукати, нумкати, собкати,* etc. (kudkudakaty, niavkaty, kakhkaty, kyshkaty, tpruskaty, rokhkaty, khriukaty, tsiavkaty, aikaty, ahakaty, heikaty, hetkaty, pkhekaty, tiukaty, okaty, fukaty, akaty, ekhaty, hovkaty, kukukaty, numkaty, sobkaty): *"Ось не мамай мені над душею'"*"Don't worry about my soul!" (Ostap Vishnya); *"Не татуй, коли старші говорять'"*"Don't touch when elders speak" (M. Stelmakh); *"Ухрюкалась [fed up] мені ваша ферма!'"*"I'm fed up with your farm!" (Oles Gonchar), let us compare it with the dialectal *ухоркатися*(to get tired) (ukhorkatysia) (get tired).

Thus, the specificity of phonetic means of objectification of emotional and evaluative semantic plans of lexical units in the Ukrainian language consists in the violation of established norms and ways of sound design of the word, in ignoring the phonetic laws of the Ukrainian language (lack of melodious balancing of

vowels and consonants, their repetitions and atypical combinations), which gives rise to the sound unusualness (expressiveness) of the lexical unit. The objectification of emotionally and evaluatively marked semantic plans of lexical units involves matching the specific sound of the word-sign (sound complex) with the specificity of its semantic structure, with the dominance of the connotative component and its basic components - evaluative and emotive semes, often with a distinct actualization of imagery, intensity, parametricity, etc.

Active materially expressed (formal) indicators (means) of objectification of emotional and evaluative semantic plans of lexical units in the Ukrainian language include the morphemic (word-forming) level. Structural motivators serve as word-forming markers of emotive-evaluative lexical units and their semantic plans: the use of emotive-evaluative creative bases, subjective evaluation affixes, modification and transformation of phraseological units, and the creation of emotive-evaluative composites based on them, modeling of a specific category of lexical units - individually - author's occasionalisms, which with their formal innovation serve as a contrast to the usual neutral lexical units.

The works of O. Bezpoyasko, K. Horodenska, V. Hrestchuk, A. Hryshchenko, N. Klymenko, I. Kovalik, K. Lenets, L. Rodnina, H. Sagach, G. Semirenko, V. Tokar, V. Khristenok and other scientists are devoted to the study of means and methods of word formation in Ukrainian linguistics. The attention of linguists is primarily focused on the study of neutral (non-expressive) lexemes of various linguistic affiliations. Regarding the expressive means of word formation, it was found that the main attention of scientists was focused on the analysis of subjectively marked units of the suffix system of the Ukrainian language. Characterization of the productivity of suffixes that form ethnically marked augmentatives and diminutives, which with the development of emotional and evaluative semantic plans "grow into names of subjective evaluation", was carried out [13, p. 184]. However, emotional and evaluative semantic plans can also manifest as multi-structural lexical units, which are the result of the interaction of different word-formation methods, word-formation types and their models. Suffixes of subjective assessment, which contain semes of positive/negative emotional-evaluative characteristics (as well as neutral ones) belong to closed classes. The mentioned formants are combined with the creative bases of almost all meaningful parts of speech, explicating a fairly developed system of creating emotional and evaluative semantic plans of lexemes that serve as a means of expressing artistic contexts: "*Вона білобрисенька, носик у неї гудзиком, ноженятка у волохатенькихчеревиках. "She is white-haired, her nose is a button, a little girl in hairy shoes..." (Ostap Vyshnya); "*Нічогенька пара?*" "Not a good couple?" (Oles Honchar); "*…щеміло там щось на самісінькому дні*", "*А дівуля, дівчинина, дівувальниця/ До кожуха, кожушенька так і горнеться,/ А бабуля, бабулиня, бабусенція/ До дівчиська, дівчиниська так і тулиться /– Сиротина ж, сиротуля, сиропташечка, Бабумамця, бабутатко, бабусонечко...*" "...there was something pinched at the very bottom" (Gr. Tyutyunnik); "And a girl, a virgin/ To a coat, a coat, and so on,/ And a grandmother, a grandmother, a grandmother/ To a girl, a girl, and huddles / - Orphan, orphan, Grandmother, grandmother, grandmother" (I. Drach); "*Коло тебенько я – дивись*" "I'm around you - look..." (M. Vingranovskyi), "*…від грязюки своєї, злодюги, і в ванні не відмиєтесь*" "... you can't wash yourself off your mud, you villain, even in the bath" (Oles Honchar).

Means of word-forming objectification of emotional-evaluative semantic plans of lexemes are: 1) emotional-evaluative creative basis (word): *барахольник, баляндрасник, бахурка, зажера, зануда,спесивець, привереда, перебреха* (barakholnyk, baliandrasnyk, bakhurka, zazhera, zanuda, spesyvets, pryvereda, perebrekha), etc.; 2) a single subjectively marked affix or a combination of several affixes, among which there is also an emotionally evaluative one: *бабій, лобур, бородай (-ань, -ач), хвостисько (-ичок, -ище, -яга, -яка, -яра), офіцерня, хитрун (-уха, -як, -ячок), ділок, літечко, живесенький, політикан,*

тихоня, дрімайло,кучерявенький, жовтісінький, частісінький, їстоньки (babii, lobur, borodai (-an, -ach), khvostysko (-ychok, -yshche, -yaha, -yaka, -yara), ofitsernia, khytrun (-ukha, -yak, -yachok), dilok, litechko, zhyvesenkyi, politykan, tykhonia, drimailo, kucheriavenkyi, zhovtisinkyi, chastisinkyi, yistonky), etc., 3) *белькотун (-уха), бовкун, брехач (-ун, -уха), бандюга, неотеса, верескун (-уха), харцизяка, мордань, нездарисько, свинтус* (від свиня 2) *підлизень, шкапійка* (від шкапа), *паршивенький, кицюнька, теребій, фіфочка, чванько, шмаркач, цяцінька* (від *цяця 3*) (belkotun (-ukha), bovkun, brekhach (-un, -ukha), bandiuha, neotesa, vereskun (-ukha), khartsyziaka, mordan, nezdarysko, svyntus (vid svynia 2), pidlyzen, shkapiika (vid shkapa), parshyvenkyi, kytsiunka, terebii, fifochka, chvanko, shmarkach, tsiatsinka (vid tsiatsia 3), etc.

The specific status in the Ukrainian language belongs to the ancient, but quite active and distinctive in terms of emotional and evaluative dimensions subcategory of diminutiveness (smallness). Although manifestations of diminutiveness can be traced in all Slavic languages, its objectification in them is far from the same, since the functional orientation of diminutive formations is determined not by communicative needs, but by expressive and figurative ones, which directly depends "on the peculiarities of the national-psychic composition of the speakers of one or another languages" [12, p. 34]. This is represented by the materials of bilingual dictionaries, which record the quantitative advantage of Ukrainian words with diminutive-ameliorative suffixes compared, for example, to Russian ones. Thus, one lexeme of the Russian language "rebenochek" (a child) in the dictionary corresponds to nine Ukrainian ones (*дитинка, дитиночка, дитинонька, дитинча, дитинчатко, дитиня, дитинятко, немовлятко,* figurative *лялечка*) (dytynka, dytynochka, dytynonka, dytyncha, dytynchatko, dytynia, dytyniatko, nemovliatko, figurative lialechka) [14, vol. 3, p. 183], and five Russian *мальчик, мальчишка, мальчонка, мальчонок, мальчуган* (malchyk, malchyshka, malchonka, malchonok, malchuhan) correspond to fourteen Ukrainian [14, vol. 1, p. 650–651]. The eleven-volume dictionary records even more - eighteen (*хлопійко, хлопцюга, хлопча, хлопчак, хлопчатко, хлопченя, хлопчик, хлопчина, хлопчинка, хлопчисько, хлопчичок, хлопчище, хлоп'я, хлоп'яга, хлоп'як, хлоп'ятко, хлоп'яточко, хлопак*) (khlopiiko, khloptsiuha, khlopcha, khlopchak, khlopchatko, khlopchenia, khlopchyk, khlopchyna, khlopchynka, khlopchysko, khlopchychok, khlopchyshche, khlopia, khlopiaha, khlopiak, khlopiatko, khlopiatochko, khlopak) [14, vol. 11, p. 84–86]. The given examples prove that the Ukrainian language has an exceptionally rich system of word-forming means - formal (mainly suffixal) verbalizers of emotional-evaluative semantic plans of lexical units - to reveal the subtlest emotional-sensual states of a person, emotional-evaluative intentions of the speaker and their objectification.

It is important to note that even when diminutive formations are used to verbalize and convey the physical smallness of a thing (used in an objective-distinguishing function), they become a means of actualizing anthropological coordinates, imply taking into account subjective factors, because it is common knowledge that "small is characteristic to be nice" (Sh. Balli).

The analysis of the actual material proved that the diminutive-ameliorative suffixes usually serve as single markers of the emotive-evaluative semantic plans of lexemes, combining with neutral creative bases: *звісточка, сонечко, місяченько, деньок* (zvistochka, sonechko, misiachenko, denok) (news, sun, moon, day). Diminutive-ameliorative suffixes are able not only to give neutral creative bases positive semantic shades, but also to influence the semantic structures of lexemes with an emotive-evaluative creative base, participating in the modification ("improvement" or "deterioration") of the semantic plans of lexemes. "Improvement" was observed in the cases of the combination of a diminutive-ameliorative suffix with a negative-evaluative creative base: *воріженьки, мордочка, типик, брехунець, наругонька, неволенька, негодонька, пузанчик* (contemptuous *купчик*), *інтрижка, поганенький, поганесенький, паскудненький* (vorizhenky, mordochka, typyk,

brekhunets, naruhonka, nevolenka, nehodonka, puzanchyk (contemptuous kupchyk), intryzhka, pohanenkyi, pohanesenkyi, paskudnenkyi), etc. Accordingly, "deterioration" is revealed in the semantic structures of lexemes with neutral (often abstract) creative bases, to which diminutive-ameliorative suffixes are attached: *теорійка, ідейка, поезійка, проблемка, темка, рішенець, статейка, землячок, царики, народець, писарець*(teoriika, ideika, poeziika, problemka, temka, rishenets, stateika, zemliachok, tsaryky, narodets, pysarets), etc. ("*читають рішенець, і Гнат дізнається, що його засуджено на заслання в Сибір*" "...the verdict is read, and Hnat learns that he has been sentenced to exile in Siberia" (M. Kotsyubynskyi).

Therefore, the diminutive-ameliorative suffixes of the Ukrainian language reveal a particularly wide range of emotional and evaluative meaning plans of lexemes. In artistic, journalistic contexts, oral speech, they usually explicate the semes connotations: kindness, tenderness, affection, sympathy, as well as contempt, irony, etc. Specially organized contexts reveal the ambivalent status of diminutive-ameliorative formants as part of lexical units.

Derived lexical units with augmentative-pejorative suffixes testify to an equally developed system of suffixes that explain the connotative semes: rudeness, contempt, etc. Emotionally and evaluatively marked formants provide negative characteristics of fragments of the environment, emotional-evaluative conclusions about persons or objects not directly, but only by interacting with creative bases.

The specificity of augmentative-pejorative formants of the Ukrainian language is in their emotional and evaluative diversity. Thus, the formants *-ak, -yak, -chak* provide the characteristics of a person, often expressing disapproval (*дивак, пияк*) (dyvak, pyiak) (weird, drunkard) and irony (*слизняк*) (slyzniak) (slug), and only occasionally the suffix *-yak* expresses approval (*добряк*) (dobryak) (kind). A number of formants together with the corresponding creative bases model an unfavorable characteristic of a person by action: *-ун (літун), -як (пияк), -ляк (кривляк), -ник (бабник)* (-un (litun), -yak (pyiak), -liak (kryvliak), -nyk (babnyk)) (with a hint of contempt). The formant *-ун* ensures the formation of emotional and evaluative names of persons according to internal and external characteristic features: *дикун, сліпун, товстун, коротун; -ил-о* (dykun, slipun, tovstun, korotun; -yl-o) - only on the outside - *здоровило*(zdorovylo) (healthy). The suffix *-ець*(-ets) serves as a companion for neutral meanings (*українець, борець, хлопець*) (ukrainets, borets, khlopets) (Ukrainian, fighter, guy), as well as ironic (*характерець, бабець*) (kharakterets, babets) (character, woman) and derogatory (*спесивець*) (spesivets) (angry). The combination of the formant *-ець*(-ets) with the corresponding creative bases actualizes semes 'approval', 'admiration' (*молодець*) (molodets) (well done). The mentioned suffix takes part in the modeling of emotional and evaluative names of persons according to a certain characteristic feature, peculiarities of behavior and relations between subjects: *безумець, задрипанець, плаксивець, скупець, ревнивець* (bezumets, zadrypanets, plaksyvets, skupets, revnyvets), etc. The formant *-ач* (-ach) together with the creative base ensures the formation of negative evaluative values - internal (*рвач*) and external (*носач*) features of a person. The pejorative color also has the suffix *-ил (о)* (-il (o)) (*здоровило*). The formants *-ук (-юк), -ул-я (юл-я)* – (uk (-yuk), -ul-ya (yul-ya)) participate in the reproduction of both positive and negative characteristics of a person (*гарнюк, чистюк, чистюля; старук, кривуля* (harniuk, chystiuk, chystiulia; staruk, kryvulia)). The augmentative-pejorative suffixes *-аш, -он* (-ash, -on) ensure the creation of a negative qualification of the subject by type of activity (*торгаш, солдафон*) (torhash, soldafon). The formants -уг(а), -юг(а), -аг(а), -яг(а) (-uh(a), -yuh(a), -ah(a), -yah(a)) manifest distinctly pejorative emotional and evaluative meanings (*вовцюга, панюга, бандюга, злодюга, босяцюга*) (vovtsiuha, paniuha, bandiuha, zlodiuha, bosiatsiuha). In combination with pejorative creative bases, they intensify their semantics, conveying condemnation, disdain for a person (*ледарюга, хамлюга, п'янюга*) (ledariuha, khamliuha, pianiuha). These formants are

characterized by the modeling of enlarged and coarsened semantic plans of lexemes that name animals, etc. The suffixes *-уган, -юган*(-ugan, -yugan) strengthen the meaning of disapproval of a person (*дідуган*) (didugan) or a fragment of the environment (*вітрюган*) (vitryugan), model the coarse-pejorative semantics of lexical units. The formants *-ан, -ань, -ень*(-an, -an, -en) serve as means of objectifying the negative characteristics of persons based on age, appearance, and mental abilities (*стариган, здоровань, окань, дурень*) (staryhan, zdorovan, okan, duren); *-ур(а), -юр(а)* (-ur(a), -yur(a)) combine the semantics of objective increase with a negative evaluation (*собацюра, носюра*) (sobatsiura, nosiura), represent the sharply revealed semantics of rudeness and contempt (*босяцюра*) (bosiatsiura), sometimes reveal an ironic-humorous emotional semantic plan (*німчура, піхтура*) (nimchura, pikhtura) and gravitate towards colloquial language, giving neutral bases (roots) distinct shades of coarseness.

Individual pejorative lexemes with this suffix have a number of counterparts, represented by synonymous co-root models with other formants: *псюра – псяра – псюка – псюга – псяка, босяцюра – босяцюга* (psyura – psyara – psyuka – psyuga – psyaka, bosyatsyura – bosyatsyuga), etc. The suffix *-ій* (-iy)can be combined with both neutral formatives (*водій, колій*) (vodiy, koliy) and provide modeling of emotional and evaluative meaning plans, carrying out explication: pampering, humiliation (*матій*), lack or insufficient literacy (*грамотій*), negative social characteristics of persons (*крадій, вертій*). The formants *-ай, -яй* (-ai, -yai) take part in the modeling of negative evaluativeness –*горлай* (horlay). A high degree of functional activity is inherent to the suffix *-иськ(о)* (-ysk(o)), which, in combination with creative bases, conveys: a) a disapproving assessment of persons - *хлопчисько, чоловічисько, дідисько, паниську, нездарисько* (khlopchysko, cholovichysko, didysko, panysko, nezdarysko); b) the increased pejorative meaning of the general plan -*кабанисько, окунисько, сомисько, чоботисько, збориську, туманисько, вітриську*(kabanysko, okunysko, somysko, chobotysko, zborysko, tumanysko, vitrysko). Connecting with the foundations (roots) of abstract semantics, the analyzed formant appears as an active means of creating a coarse and pejorative evaluation - *сміховисько, посміховисько, страмовисько, стидовисько* (compare with neutral*насовисько, житнисько*) (smikhovysko, posmikhovysko, stramovysko, stydovysko).

Feminine nouns with augmentative-pejorative suffixes combine the semantics of coarseness (enlargement) with a pejorative evaluation and explain a familiar-disparaging attitude to the subject of thought. This semantic and word-forming group is represented by the following formants: *-ух(а), -юх(а) – балакуха, -ах(а) – рибаха, -ук(а), -юк(а) – холодюка, грязюка, змиюка, -их(а) – мниха, -омах(а) – грудомаха, -щин(а) – літературщина, -аці(я)* (передає іронію) – *мудрація, -ек(а) – пащека, -енці(я) – штукенція, ег(а) – торбега, -ері(я) – машинерія, -неч(а) – гуркотнеча, -отн(я) – гуркотня, -отняв(а) – гуркотнява, -анин (а) – гупанина, -лів-+-к* (-ukh(a), -yukh(a) – balakukha, -akh(a) – rybakha, -uk(a), -yuk(a) – kholodiuka, hriaziuka, zmiiuka, -ykh(a) – mnykha, -omakh(a) – hrudomakha, -shchyn(a) – literaturshchyna, -atsi(ia) (peredaie ironiiu) – mudratsiia, -ek(a) – pashcheka, -entsi(ia) – shtukentsiia, eh(a) – torbeha, -eri(ia) – mashyneriia, -nech(a) – hurkotnecha, -otn(ia) – hurkotnia, -otniav(a) – hurkotniava, -anyn (a) – hupanyna, -liv-+-k) (indicates the result of an action that does not meet the social norm, standard) –*зрівнялівка* (zrivnialivka), etc.

Nouns of the common gender (feminine-masculine) with augmentative-pejorative suffixes usually provide negative characteristics of persons. The negative semantics of increase with a familiar-disparaging shade is provided by creative bases combined with formants: *-ак(а), -як(а): гуляка, задавак, мордяка, влодияка, кривлака* (-ak(a), -yak(a): huliaka, zadavak, mordiaka, vlodyiaka, kryvlaka). The connotation with the "minus" sign has a rather wide amplitude- from disapproval (*-с (а) – плакса, рюмса*) ((-s (a) – plaksa, riumsa)) to contempt and irony (*-ош(а) – святоша* (-osh(a) – sviatosha) (pretend-pious,

hypocritical-righteous person). Only the formant *-яг(а)*(- yag(a)) combined ameliorative (*роботяга, добряга, скромняга, бідняга*(robotiayga, dobriyaga, skromniayga, bidniayaga) (sympathetically)) and pejorative (*бродяга*(brodiayga) (with a tone of disapproval), *діляга*(dilyaga) (with a tone of contempt) evaluations. The participation of suffixes in the formation of negative emotional and evaluative semantic plans of lexemes implies: 1) the possibility of being combined only with certain evaluative bases and 2) the specificity of their phonetic design: -*юг(а) – жаднюга, хитрюга, п'янюга; -юк(а) – злюка; -ох(а) – забрьоха, -уд(а) – зануда, -ур(а), -юр(а) – замазура, -ендр(а) – скупендра, -индр(а) – скупиндра, -инд(я) – скупиндя, -ендряг(а) – скупендряга, -ердяг(а) – скупердяга, -ердяк(а) – скупердяка, -ос(а) – нечоса, -іс(а) – гульвіса, -ес(а) – неотеса, -іп(а) – гультіпа, -ох(а) – мандрьоха* (-yuh(a) – zhadniuha, khytriuha, pianiuha; -yuk(a) – zliuka; -okh(a) – zabrokha, -ud(a) – zanuda, -ur(a), -yur(a) – zamazura, -endr(a) – skupendra, -yndr(a) – skupyndra, -ynd(ia) – skupyndia, -endriah(a) – skupendriaha, -erdiah(a) – skuperdiaha, -erdiak(a) – skuperdiaka, -os(a) – nechosa, -is(a) – hulvisa, -es(a) – neotesa, -ip(a) – hultipa, -okh(a) – mandrokha), etc.

It was found that the pejorative suffix *-ищ(е)* (-ysh(e)) in the names of non-beings and the names of animals models mainly enlarged (coarse)-evaluative word-formative derivatives: *ножище, хвостище, бородище, павучище, вовчище* (nozhyshche, khvostyshche, borodyshche, pavuchyshche, vovchyshche), and, accordingly, in the nominations of persons - affective, negatively-evaluated: *бабище, свекрушище* (babyshche, svekrushyshche). "Improvement" of the evaluative value was observed only in the emotives*дружище* and*хлопчище* (*druzhyshche* and*khlopchyshche*), which have positive (or neutral) emotive evaluative roots.

Thus, the power of the emotional and evaluative semantic potential of augmentative formations is quite stable, subjectively oriented and indisputable, since they are practically unable to reveal the "pure" objective physical increase of a thing, their connotation is not connected and does not directly depend on parametric denotative semes. Reproduction of intensive-parametric features of the object without involving the emotional and evaluative conclusions of the speaker is usually provided by neutral phrases (compare: very strong wind (viter) and *вітрюга, вітрюган, вітрище* (vitriuha, vitriuhan, vitryshche); long beard (*boroda*) and *бородище* (borodyshche)).

The specificity of the meanings of derived emotives-diminutives (more often) and emotives-augmentatives (rarely) is determined by their position in the communicative activity of a person, their functional role in communicative processes and the type of nomination - neutral or expressive.

Augmentative-pejorative suffixes, which change "minus" to "plus" mainly within a specially organized context, appear to be more consistent in modeling the typical emotional and evaluative meaning plans of lexemes. Among the diminutive-ameliorative suffixes, it is difficult to single out diminutive semes (small things, diminutives), since they can simultaneously objectify both affection, tenderness, approval, etc., and the most diverse pejorative shades of meaning - from familiar (*інтрижка*(intryzhka) intrigue) to contemptuous (*землячок* (zemliachok) (countryman)). In addition to modeling binary emotive and axiological meaning planes, diminutive suffixes are able to "soften" the negative-evaluative semantics of the creative base (*бісеня, карапузик, миршавенький, наругонька, недоленька, пузатенький, скандальчик* (bisenia, karapuzyk, myrshavenkyi, naruhonka, nedolenka, puzatenkyi, skandalchyk), etc.); to strengthen it somewhat, actualizing the ironic-despicable potential, in particular seme *contempt* for this: *паскудненький, посіпачка, п'яниченька, фіфочка* (paskudnenkyi, posipachka, pianychenka, fifochka); add to the content of the neutral creative base semesof negative plans (disapproval, familiarity, irony, condemnation, disgust, etc.): *закоханець, інтелігентик, народець, писарець, працівничок, простачок, рецензійка,розумець, розумок, ролька, романець, романсик, секретарик, статейка, сюжетик, теорійка,*

типик, філософійка, хазяйчик, царик (zakokhanets, intelihentyk, narodets, pysarets, pratsivnychok, prostachok, retsenziika, rozumets, rozumok, rolka, romanets, romansyk, sekretaryk, stateika, siuzhetyk, teoriika, typyk, filosofiika, khaziaichyk, tsaryk) etc.

Sometimes, at the synchronic level, the means of objectification of the emotive-evaluative meaning plans of the lexeme may not be clearly identified and perceived by native speakers, but this does not significantly affect the connotative (emotional-evaluative) potential of the lexical unit. Etymological analysis makes it possible to identify the connections of the corresponding emotive-evaluative word with others, to find out its connections with units of other language levels. Thus, the semantics of the dialect lexeme of a *лебедаха* (poor man) can be motivated by identifying the interaction of two marked lexical units (as a result of contamination), one of which is a diminutive-ameliorative formation (*лебедик*is an affectionate address to a man), and the other is a sympathetic-indulgent *бідолаха* (poor man) (with the suffix of subjective assessment).

The conclusion that lexemes with diminutive formants provide the objectification of positive-evaluative semantic plans, and, correspondingly, those with augmentative ones rovide negative ones, should not be considered unconditional, since quite often the "affectionate" form serves as a means of realizing "prickly", "biting", "caustic" content.

The specific means of objectifying emotional-evaluative semantic plans of lexical units of the Ukrainian language include complex words that organically combine the brevity of emotional-evaluative conclusions and semantic multifacetedness and aptness, expressiveness. Lexical units formed by word composition (*баболюб, буквоїд, вертигуз, правдомовець, песиголовець, гріхотворець, білоручка, жмикрут, кривоніс, зірвиголова, ласогуб, багатознайка, пустоцвіт* (baboliub, bukvoid, vertyhuz, pravdomovets, pesyholovets, hrikhotvorets, biloruchka, zhmykrut, kryvonis, zirvyholova, lasohub, bahatoznaika, pustotsvit), etc.) reveal their connections with metaphorical (sequential and subordinating) word combinations. The method of their creation can be the transformation or contraction (the phenomenon of compression) of stable phrases -phraseological units (*душогуб* (dushohub) (to destroy the soul), *баляндрасити* (balyandrasyty), *теревенити* (terevenyty), *слизькоязикий* (slyzkoiazykyi) (slippery on the tongue), *вертихвіст, крутихвіст* (vertikhvist, krutikhvist) (to spin with a tail), *гаволов* (gavolov) (to catch a gawd), *вітрогін (вітрогон)* (vitrohin (vitrohon)) (wind-gun) – (to drive the wind), *пустоголовий* (pustoholovyi) (empty head), *крутиголова (закрутиголова)* (krutyholova (zakrutyholova)) (twist (spin) the head), *окозамилювач* (okozamyliuvach) (to make the eyes soft). Emotionally evaluative semantic plans of derivatives expressive composites can be motivated by both free phrases and phrasemes. Expression of the connotative components of lexemes is possible due to the addition of suffixes (*користолюбець, гріхотворець* (korystoliubets, hrikhotvorets) (self-interested person, sinner)) or the use of zero suffixation method (*грошолюб, лизоблюд* (hrosholiub, lyzobliud) (money-lover)).

Various types of metaphors representing the lexical-semantic way of expressive word formation serve as a powerful means of informal objectification of emotional and evaluative semantic plans of lexical units. Actually, the semantic indicators of lexical emotionality belong to implicit means; they involve taking into account the compatibility of lexemes, as well as the value orientations of the ethnos, which are specific to the particular language and culture of the people. Vezhbytska emphasizes that each language is nationally specific, so it can become a basis for reconstructing the features of the national mentality [20].

The most typical lexical-semantic transformations in the Ukrainian language include metaphorization, represented by a number of models such as "the name of a plant (fruit) -the name of a person" (*калина, тополя, лілія, лопух, мімоза, насіння, перець, печериця, пуп'янок, зілля, реп'ях, капуста, трава, перекотиполе, шишка,ягідка*(kalyna, topolia, liliia, lopukh,

mimoza, nasinnia, perets, pecherytsia, pupianok, zillia, repiakh, kapusta, trava, perekotypole, shyshka, yahidka), etc.). The source of a metaphor can be any lexical-semantic sphere, in particular, it is "a transformed image that maintains a connection with marked fragments of reality and is ideographically correlated with the "earthly" model of the world and the spiritual sphere of a person" [9, p. 91]. Metonymic transfers are mainly represented by two models: 1) "sign - its bearer" (beauty, talent, perfection, attractiveness, beauty, sympathy, glory, conscience, pride, dirty, blindness, darkness) and 2) "proper name - common name" (*пузир, авгур, донкіхот, іуда,каїн, крез, купідон, макіавелл, мегера, пілат, тартюф* (Bubble, Augur, Don Quixote, Judas, Cain, Croesus, Cupid, Machiavelli, Megera, Pilate, Tartuffe), etc.).

The objectification of emotional and evaluative semantic plans of lexemes is usually provided by derivative metaphorical bases, which are closely related to the metaphorical image of the creative base. Modifications of the image were observed against the background of the use of the existing metaphorical lexeme as a kind of base for creating new emotional and evaluative meanings (mainly from the bases of nouns): *ангелП – ангельський* (affectionate, submissive, gentle, kind), *лицар П – лицарський* (educated, emphatically polite), *гава П – гавити* (to be inattentive, unhurried), *глевтяк П – глевтякуватий* (clumsy), *гадюка П – гадючий* (dangerous, treacherous), *звір П – звіріти* (to become fierce, cruel; to be mad, to be mad), *змія П – зміїний* (angry, insidious, hostile), *зміїтися,їжак П – їжитися* (assume), *наїжачитися* (strain internally), *леміжка 2П* (about an indecisive, characterless person) – *лемехуватий* (clumsy, lethargic, phlegmatic), *липа 2П* (about something fake) – *липовий П* (fake, real), *лис П – лисичити, мавна П – мавпувати, мавпування, баран П – обараніти* (become dark; get very confused), etc.

The analysis proved that the adverbial verbs always preserve the emotive-evaluative semantics of the motivator, although it is located in the consciousness of the speakers on more than one temporal or spatial slice and cannot be unambiguously perceived by them. Thus, the emotive to *розкокошитися* (rozkokoshytysia) (to start showing ridiculous arrogance, hot-temperedness; to get fired up) is formed in a prefixed way from another evaluative emotive – *кокошитися* (kokoshytysia) (to behave arrogantly, haughtily, to rebel, to brag, to show off), the lexical motivator of which is the dialectic *кокош* (kokosh) (rooster). The evaluative semantics of the derived verb is conditioned by the metaphorical image of a *півеньП* (cockerel) (kokosh P) - about a cocky and hot-tempered person.

At the semantic level, the contrast between emotionally and evaluatively marked word and its neutral correlate can be established on the basis of component analysis, characteristics of the components of the semantic structures of tokens. The semantic structure of the first lexeme is much richer, it is distinguished by the presence of such components as emotionality, evaluability, intensity, parametricity, imagery, etc., which are representatives of the connotative component in their most diverse combinations.

So, the analysis revealed that emotional-evaluative lexical units are characterized by a fairly wide field of transferable semantic plans, based on semes, fixed in direct (nominative) meanings, since derived figurative semes cannot arise spontaneously. Their character is motivated by a semantic invariant (denotative component), which manifests the position of a certain word in the lexical system of the national language. Realizing and understanding an expressive metaphor or metonymy is helped by national stereotypes, on the basis of which these transfers are based, and thought processes that provide awareness of the ways of their emergence, as well as directing mental efforts to overcome the logical incompatibility of combined meanings through the detection of semantic agreement between them.

4 Conclusion

The analysis of means of verbalization of emotive-evaluative semantic plans of lexical units of the Ukrainian language made it possible to single out static and dynamic functional spheres, formed principles of structuring of functional-semantic fields of emotionality and axiologicality, which explain, in addition to means, a wealth of different ways of expressing emotive-evaluative semantic plans of lexical units, mechanisms of their contextual implementation.

Emotionally-evaluative semantic plans of lexical units represent a phenomenon marked and motivated in a certain way. In the Ukrainian language, the following methods of objectification (motivation) of emotional and evaluative semantic plans turned out to be the most characteristic for them: phonetic, word-forming, and semantic. Each method has in its arsenal specific means, indicators that appear as direct verbalizers of emotional and evaluative semantic plans of lexical units. These include: phonetic (specific sound repetitions, sound imitation, sound symbolism, presence of specific sound combinations, phonetic exoticism of a lexical unit, etc.); word-forming (exceptionally rich, extensive and specific system of diminutive-ameliorative and augmentative-pejorative formants, motivation at the word-forming level, etc.); semantic (figurative (metaphorical and metonymic) values that arose as a result of expressive (usual or occasional) nomination).

The specificity of means and methods of objectification of emotional and evaluative semantic plans of lexical units of the Ukrainian language today is determined by the quantitative and methodical, methodological diversity of approaches to analysis, the actualization of the semantic level, objectified through the prism of features of the Ukrainian national character.

We see the prospects for further research in the understanding of basic extralingual factors, which involves taking into account the types of speech activity, the goal and task of communication, the gender of communicators, social status and the type of social activity of a person. These factors have an influence on the frequency and regularity of the use of emotive-evaluative lexical units, determine the limits of their functioning, form the specifics of the manner and style of expression, affect speech organization both at the level of a separate lexical unit, a number of linguistic means, microtexts, and macrotexts.

Today, Ukrainian linguists face very important tasks, among which there is the study of the processes of activation of the use of emotives, the functioning of emotive-evaluative lexemes as a linguistic reality of the war period, the relevance of the analysis of wartime texts and dictionaries.

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ECONOMIC SECURITY OF STATE: DIAGNOSIS, DESIGN AND STABILITY OF SYSTEM

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Abstract: The article is devoted to the theoretical and methodological foundations and the mechanism of designing a sustainable system of economic security of the state based on the use of the theory of security science, systems, structural harmony of systems, transdisciplinary approach, and principles of natural management. The objective was to substantiate the innovative design algorithm based on the transdisciplinary approach and the theory of self-organization of systems. The methods of institutional, systemic, transactional, statistical, project analysis and modeling were used. The structural and functional composition of the system of economic security of the state as a set of invariants and variations has been developed. The theoretical provisions and algorithm for designing a sustainable system of economic security of the state are presented; the algorithm for diagnosing the state of economic security of the state based on the use of entropy testing of systems is substantiated and proposed. The applied aspect of the use of the developed theoretical provisions is presented in the form of a project of a number of anti-crisis measures at the macroeconomic level.

Keywords: Economic security, Entropy's testing, Nature-like invariants, Self-organization, System.

1 Introduction

The system of economic security of the state is open, complex, non-linear, dissipative, and emergent [35; 39]. Each complex open system, schematically or enlarged, has three basic components: input - circuit of operational closure - output [45; 48]. In the most detailed and obvious nature, the presence of this property can be observed in nonlinear or non-Gaussian systems with the properties of self-organization and self-harmonization. Operational closedness is a system property that affects the behavior of the system as a result of the interaction of the network of circuit processes; the action of these processes in the circuit forms the emergence of superproperties or the effect of emergence, or the synergistic effect [11; 13]. The property of operational closure is the most important and interacts with the properties of self-organization and self-harmonization. Together, these three properties ensure the stability of the system and its viability to changes and various kinds of bifurcations for the period between these bifurcations and changes in the state of the system and its transition to a new level. In crisis periods, there is a need to measure and assess the state of the system, which is practically impossible to do with the help of ordinary indicators [36; 37; 45].

According to K. Shannon, the assessment of the state of the system with self-subordination properties can be determined by calculating the relative information entropy - an integral indicator, the values of which mathematically correspond to the generalized golden sections or fractions of a unit [5; 23]. Generalized golden intersections or special points of multiple relations of entropy and its antipode, redundancy, or measure of organization, measure of uniformity, when entropy is a measure of diversity, beyond equilibrium - the diversity of the limited [7, 16, 32, 33] - act as measure nodes or invariants or attractors of the system.

2 Method

One of the most important properties of a system is integrity. Interrelated integral systems of objects form a supersystem [30; 39]. Common features for integral systems are their proportionality, harmony, determined by measure or proportionality. Ignoring measure (commensurability) as the most important characteristic of systems or integral objects leads to distortions in science and practice, provoking the emergence of disproportions and crisis situations [45].

The loss of the properties of the integrity of the system, which is based on structural commensurability in all aspects of the social and economic life of society, does not allow achieving its systemic quality. The one always consists of two opposites. "If one of the opposites is probability, then the other is improbability; one of them is a measure of chaos, the other is a measure of order; one is a measure of diversity, the other is a measure of uniformity, and so on. When opposites are measurable, they have their own quantitative measures, are equal to A and B, then they satisfy the law of conservation in the process of striving for a single measure: A + B = 3, or in a relative, weighted form: A + B = 1 (the unit interval is an isomorphic image of a real numerical half-line)" [25; 26; 27].

Thus, there are two measures in the dynamic space of a unit interval:

$$\frac{1}{A}\frac{dA}{dt}$$

and

$$\frac{1}{B}\frac{dB}{dt} \qquad (1)$$

According to Lebesgue's theorem [20], if two measures are given in some domain, then they are multiples. This fact is well known from everyday life: kilograms and tons, minutes and hours, dollars and cents, etc. In this case, this means that, depending on which of these measures is taken as the standard (unit of measurement), one of two equations will be possible, or, where the multiplication factor, according to its definition, is a natural number: 1, 2, 3,.... As a result, according to the previous relation, we have one of the equations, or the roots of this equation obtained at natural values of k - they are called generalized golden sections. They are the quantitatively expressed nodes of the measurement line projected on a single interval: 0.5000 ...; 0.6180 ...; 0.6823 ...; 0.7245, 0.825 ... [15, 48, 16, 17].

The roots of the opposite content, i.e., the most distant from them, obtained at half-integer values of the parameter k = 3/2; 5/2; 7/2, ... can, by analogy with such points, be called antinodes of measure: 0.5698 ...; 0.6540 ...; 0.7053 [32].

The first, measure nodes, are attractors for integral indicators of systems, in particular, for relative information entropy as a measure of the state of any structurally complex system. These values are the basic characteristics of non-equilibrium stable, stationary states of complex systems that self-organize and evolve beyond their equilibrium, where this indicator is relative entropy, equal to 1.

The measure of the amount of information contained in an event, as shown by R. Hartley [11], is the logarithm of the probability of this event, which is taken with the opposite sign: - log p. But the logarithm of the improbability of this event can also be a measure: - log (1- p).

From the multiplicity of these measures, log (1- p) = k log p, the equation follows: p k + p - 1 = 0. Its roots: 0.500; 0618 ...; 0.682 ..., when k = 1, 2, 3, ... and are nodes of measure, where *p* are generalized golden sections. If the state of the system for which the value of the integral measure coincides with these nodes, then the increase in chaos is minimal and there is maximum increase in organization, order, structural harmony, and system quality. When the state of the system for which the integral measure takes a value corresponding to the antinodes (which are indicators of such states where the system properties of objects

are manifested in the minimum possible forms), there is a maximum increase in dissipation, dynamic chaos.

Entropy becomes an expression of the amount of information related in the distribution of system components [23; 24]. Normalized to a unit, i.e., taken to its maximum value, it takes the following form:

$$\overline{H} = -\frac{1}{\log n}\sum_{i=1}^{n}p_i\log p_i \qquad (2)$$

where *n* is the number of system components.

As a measure of chaos, structural diversity, the maximum of which is reached at $\overline{H} = 1$ - in the state of equilibrium of the system (that is, when the weights p_i of its structural components are equal), it is additional to the measure of organization, order, uniformity *R* and satisfies the conservation law together with it: $\overline{H} + \mathrm{R} = 1$.

According to the theorem of Prigozhin [26], beyond the equilibrium of the system, entropy is able to reach a minimum of production (increase), and its antipode R - a maximum: $\frac{d}{dt}(\frac{1}{\overline{H}}\frac{d\overline{H}}{dt}) = 0$ and accordingly $\frac{d}{dt}(\frac{1}{R}\frac{dR}{dt}) = 0$. According to the condition of multiplicity of relative measures, $\frac{1}{R}\frac{dR}{dt} = k\frac{1}{\overline{H}}\frac{d\overline{H}}{dt}$, $\mathrm{R} = \overline{H}^{k}$, which in combination with the conservation law gives a generator of measure nodes $\overline{H}$: $\overline{H}^{k} + \overline{H} - 1 = 0$. This is the same equation as above, but already for the integral Measure, as the average relative to the statistical set of probabilities, which is able to express both the level of intrastructural diversity and the level of intrasystem chaos.

According to Ziegler's principle, beyond the equilibrium of the system, the production of entropy in it is maximized. Attractors and distractors of non-equilibrium states of the system are nodes and anti-nodes - indicators of the states present in any of the systems regardless of their scale and specific real specificity in the process of self-organization or evolution [32; 33], and the transition between such states is quantized and fixed by measure nodes.

The ontological status of the measure and information entropy, the nodal value of which corresponds to the best options for solutions or optimization, ensuring the stability of the system based on the principle of diversity, should be carefully studied on the example of various economic systems, including the system of economic security of the state [45, 46, 27; 29].

The principle of diversity entered science through the concept of information. In 1948, Shannon and Weaver developed an information-theoretic basis for assessing system diversity; the concept of "information", if used in a broad sense, successfully replaces such expressions as "amount of diversity" or "specificity" [31].

Regarding the stability of complex systems, for example, the system of economic security of the state, it should be noted that this refers to non-equilibrium stability [34; 38]. This is inherent in all systems in which some exchange processes take place on a permanent basis (in stationary mode), as a result of which its structural and functional renewal takes place. In stationary conditions, the system reaches a minimum increase in entropy, and it has a maximum increase in the measure of organization - redundancy. "Passing through a series of intermediate phase states in motion to acquire the best harmonic stationary state of all possible, the system chooses, in the end, a structure - an attractor from some class (innumerable) of this kind of virtual structures with a nodal value of the integral measure fixed for each of them (the same entropy as a measure of limited diversity). Thereby it finds its proper level of intensity of exchange processes, the tension of its characteristic functional mode, and, therefore, - the proper type of system quality" [33].

3 Results

Evidently, it is important to take into account in a timely manner the process of objective attraction to the structure of the attractor of financial funds, distributed among various items of budget expenditures, and to adjust the related structural and financial policy of the state accordingly. Consider Table 1.

Table 1: Expenditure structure according to the State Budget of the USSR (billion rubles in comparable prices)

Articles of expenditure	…	Period A 1964	Period B 1965 1966 1967 1968 1969	…	Period C 1983 1984 1985 1986 1987
Economics	…	45.0	45.2 44.8 44.4 46.6 46.1	…	59.7 60.1 60.4 60.5 60.2
Social and cultural activities	…	38.2	39.9 40.4 40.6 38.8 39.1	…	34.4 34.2 33.6 33.8 34.2
Defens e	…	15.5	13.7 13.4 13.7 13.3 13.5	…	5.1 4.9 5.2 4.9 4.9
Man agem ent	…	1.3	1.2 1.4 1.3 1.3 1.3	…	0.8 0.8 0.8 0.8 0.7
Value $\hat{H}$	…	0.774	0.758 0.761 0.761 0.756 0.758	…	0.624 0.620 0.623 0.618 0.617
Node of the measure $\hat{H}$		0.778 (k = 6)	0.755 (k = 5)		0.618 (k = 2)

Source: [33]

From Table 1, it is evident how, passing through intermediate phase states, from period A to period B, which are characterized by certain nodal values of the integral measure, the economic system "Budget of the USSR" in its spending part in the process of evolution objectively seeks to find such a distribution of components for which this measure is equal to the nodal value of 0.618. It is the most natural, as it satisfies the Euclidean metric. Let us note that the specific weight of the structural dominant of the distribution - "Expenditure on the national economy" - also approaches the same nodal value. In natural systems, self-organization of complex systems takes place in the form of self-harmonization, for example, the system of phyllotaxis, as statistically and spatially distributed, where nodes of measure, generalized golden sections visually reveal the properties of an attractor (for example, a sunflower flower).

To illustrate the structural dynamics of society, in which the golden ratio naturally and objectively reveals its attractive properties, consider an example from the economic situation of the USA (Table 2).

Table 2: Structural transformations of the US economy and the evolution of its integral characteristic - relative entropy

| Year | Number of employed, % | | | | Informational entropy $\hat{H}$ as Integral measure: real |
	Agriculture	Material production*	Service area**	Unemployed	
The period of the Great Depression					
1929	21.1	38.7	37.1	3.1	0.845
1931	20.3	31.0	32.9	15.8	0.967
1933	19.5	26.9	28.9	24.7	0.993 (max)
1934	18.9	29.2	30.3	21.6	0.986
1940	17.0	33.5	35.0	14.5	0.949
The period of the 2nd World War and the post-war years					
1942	15.3	37.8	42.5	4.4	0.834
1943	14.1	35.8	48.4	1.7	0.769
1944	13.6	34.1	51.3	1.0	0.741
1948	12.3	39.6	44.4	3.7	0.799 (0.797)
1951	10.5	39.5	46.8	3.2	0.771 (0.778)
1954	9.4	37.5	47.7	5.4	0.794 (0.797)
1955	9.6	38.2	47.9	4.3	0.779 (0.778)
1958	8.0	36.9	48.5	6.6	0.794 (0.796)
The period of the beginning of economic growth					
1962	6.8	36.7	51.1	5.4	0.758 (0.755)
1965	5.7	36.4	53.5	4.4	0.724 (0.725)
1968	4.7	34.4	57.4	3.5	0.683 (0.682)
1973	3.8	32.6	58.8	4.8	0.684 (0.682)
1978	3.3	30.3	60.4	6.0	0.684 (0.682)
1980	3.1	28.7	61.2	7.0	0.687 (0.682)
1984	2.9	27.6	62.1	7.4	0.683 (0.682)
Period of stabilization of economic growth					
1988	2.6	25.5	66.5	5.4	0.629 (0.618)
1989	2.5	24.8	67.5	5.2	0.618 (0.618)
1994	2.6	22.5	68.9	6.0	0.617 (0.618)
* Includes: industry, mining, construction, etc. ** Includes: service industry, finance, insurance, home ownership, trade, transportation, public housing, state and federal services, military.					

Modified by the authors according to sources: [2;33]

From the given data, it follows that during the Great Depression, the indicator $\hat{H}$ - the relative entropy of a given distribution of structural groups of living labor - was closest to unity, since the structure was characterized by the maximum proximity to the equality of the weights of its components, which corresponded to the minimum of functional, production potential, and, therefore, also the maximum chaos that engulfed society.

In order to overcome this situation as soon as possible and revive its industrial atmosphere, the USA was very interested in participating in the Second World War: bled by the Great Depression, the economy was still in a state of crisis in the early 1940s, for more than a decade of War years (1941-1944) - although the economy is progressing, but with jumps "back and forth" at a rather low economic potential and the level of exchange in society as a social organism. It is still deeply disharmonized: the relative entropy, as an integral characteristic of its structure, gravitates towards the antinodes of the measure, which are far from the optimum - from the invariant of 0.618.

In the post-war years (1948-1958), the economy is in a state of "cold war", structurally and functionally it is still not sustainable. It alternately has fluctuations of growth and loss of quality. The next decade, from the beginning of the 1960s, is characterized by progress in growth. From 1968 to 1984, there was staying in a stable state, which is characterized by a pre-optimal node of measure - 0.682. Finally, since 1988, there was the acquisition of an evolutionarily mature state of harmony with

maximum opportunities for revealing one's own potential and the flow of exchange processes in an effective functional mode.

Calculations confirm the value of the integral indicator, information entropy $\hat{H}$, as a node of measure.

Speaking about the stability of complex systems, for example, the system of economic security of the state, it should be noted that the stability meant here is unbalanced.
It is clear that the process of objective attraction to the structure of the attractor of financial funds, distributed among various items of budget expenditures, is important to control and correct in a timely manner, affecting the related economic, structural, financial, etc. state policy. Also, such an integral indicator can be used in the diagnosis of processes related to the management of business structures, even TNCs [49]. This clearly confirms the value of the integral indicator, information entropy $\hat{H}$, as a node of measure or attractor.

4 Discussion

Self-organization of the system of economic security of the state is provided by a set of mathematical constants of a stable system, namely constants inherent in any natural system [12; 28; 44]. The hypothesis regarding the possibility of designing a stable system is based on primary design, or on bringing into an artificial system for the purpose of its redesign as a set of mathematical constants of living nature [45-48].

A comprehensive study of the phenomenon of self-organization of the economic security system is an actual direction of modern theoretical research and has significant applied value. The economic basis for analyzing economic security as a self-organized system is transaction costs [7]. Namely the comparison of the price of legality and illegality of using the market mechanism initiates the possibility of improving the management system.

An indicator of the presence of problems in the system of managing the economic system in general and the system of economic security of the state is the shadow economy and its level. Business chooses between the price of legality and illegality and this also belongs to the display of integrity. "The main features of the system, which determine its identity and integrity, and are not inherent to any of its components, are not deduced from the properties of the parts, but arise from their combination. This effect is called emergent" [31; 45].

Prof. Khitsenko defines self-organization as "Involuntary process of growth and maintenance of mutual coordination of system elements by increasing its complexity and imbalance" [13].

Prigozhin, one of the founders of the theory of self-organization, connected this phenomenon with the concept of dissipative structure - a structure that spontaneously arises in open unbalanced systems. Naeely the "combined actions" or coherent behavior of the elements of dissipative structures is the phenomenon that characterizes the processes of self-organization". Prigozhin defines self-organization as "the choice of one of the solutions arising at the point of bifurcation, which is determined by the laws of probability" [24]. Practically this is how other scientists described this phenomenon [35; 39].

The phenomenon of self-organization is related to such a concept as chaos or dynamic chaos [33]. Prigozhin and Stengers claim that "Events are a consequence of the instability of chaos" [23]; "Chaos" and "Matter" are closely related concepts, since dynamic chaos is at the basis of all sciences" [24; 25]. In the work of Prigozhin and Stengers, the provision about two different types of manifestation of a chaotic state is given, and namely at the micro-levels of "formalizing dynamic chaos" and at the macro-levels of "dissipative constructive chaos" the conclusion regarding the problems of reversibility and irreversibility is substantiated [24;25].

In turn, the problem of irreversibility is related to evolutionary processes "Under evolutionary or irreversible processes, we understand those changes that, in the absence of sharp external perturbation influences, proceed in a certain direction and in the same direction" [33]; "However, the national economic process as a whole is characterized by ... an irreversible process of transition from one degree or stage to another" [2; 33].

The constant of the golden ratio and its mathematical derivatives are structural invariants, attractors that should be focused on when designing artificial supersystems and their components [12, 28, 43, 49]. The stages of the design methodology are as follows:

1. Assessment of the status of the system (for example, the system of economic security of the state).
2. Evaluation of the time interval between the occurrence and satisfaction of the need (in a specific system).
3. Assessment of the structural and functional state of the system.
4. Assessment of the level of vertical integration of business across industries and sectors of the economy and the share of added value in the gross domestic product.
5. Comparison of evaluation results with attractors representing a recurrent series of golden sections: 0.500 ...; 0.618 ...; 0.682 ...; 0.725… 0.825….
6. Control of reliability and viability of the system (estimation of deviations).
7. System entropy testing (relative information entropy calculation).
8. Formulation of the system restructuring (reengineering) project.
9. Implementation of the project and assessment of compliance of the designed system for structural and functional compliance with the constant of the golden ratio and its derivatives [45; 49].

The economic cenosis model corresponding to the biological cenosis model was developed by V.V. Fufaev [8]. Its essence consists in the analysis of regularities for various business forms:

1. A list of all types of activities is drawn up based on a sample of organizations of a separate economic cenosis.
2. According to the list, drawing up a listing of organizations with the same main type of activity is carried out.
3. Activities represented in this sample by the same number of organizations are grouped into castes.
4. Castes are placed in order of decreasing number of types of activities in them, as a result of which the distribution of types of activities is obtained according to repetition.

To diagnose the state of economic cenoses (as well as other types of formations) on the subject of "norm-pathology", the H-distribution by B.I. Kudrin [18; 19] is applied. In addition, in our opinion, the diagnosis of "norm – pathology" can be performed using a recurrent series of golden sections - where the nodes of the measure characterize the norm, and the antinodes define pathology.

In continuation of replenishment of the set of tools of nature-like management methodology [12, 28, 40], it is necessary to present the discovery of V.P. Burdakov and V.T. Volov, according to which, in any complex-organized system, as in an organism, regardless of its subject specifics - technical-technological, biological or social - the internal load of the processes of resource life support is self-similarity, has a fractal nature based on the invariant of the golden section [3, 21, 22, 46].

The authors singled out a fundamental set of indicators of the functioning of a complex system, which, thanks to exchange processes, is a stable and cyclical organism that actually renews itself. These indicators are combined in the form of five clusters and subclusters:

1. Energetic (38%)
1.1. Energy resources of the body (14.44%)
1.2. Energy supply of transport (10.26%)

E 1.3. Energy protection (safety) of the body (6.08%)
1.4. Energy supply of production functions (4.94%)
1.5. Power supply of informatics (2.28%)
2. Transport (27%)
2.1. Transport resources of the body (7.29%)
2.2. Transport provision of energy sector (10.26%)
T 2.3. Transport provision of security (4.32%)
2.4. Transport support of production (3.51%)
2.5. Transport support of informatics (1.62%)
3. Protective (16%)
3.1. Resources for ensuring the safety of the body (2.56%)
3.2. Transport safety (4.32%)
B 3.3. Security of body energy (6.08%)
3.4. Production safety (2.08%)
3.5. IT security (0.96%)
4. Production (13%)
4.1. Production resources of the body (1.69%)
4.2. Production maintenance of transport (3.51%)
P 4.3. Production (technological) ensuring of protection (2.08%)
4.4. Production support (maintenance) of the energy industry (4.94%)
4.5. Production support of informatics (0.78%)
5. Informational (6%)
5.1. Information resources of the body (0.36%)
5.2. Transport information support (1.62%)
I 5.3. Information provision of security (0.96%)
5.4. Information provision of production (0.78%)
5.5. Information provision (maintenance) of the energy industry (2.28%)

These clusters characterize the distribution of resources in complex systems as organisms (including biological, technical-technological, and social systems) according to the following fundamental categories or positions: Energy (E) - Transport (T) - Security (B) - Production (P) - Information (I) [2].

For example, for a social organism, the structure of energy resource costs (E) in percentage terms looks as follows: Information provision of energy (2.28%) + Production service of energy (4.94%) + Ensuring security of energy (6.08%) + Transport energy maintenance (10.26%) + Energy resources, i.e., water, light, heat, food, fodder, electricity, oxygen, motor fuel, fuel for thermal power plants, nuclear power plants, etc. (14.44%) + Energy supply of transport and exchanges (10.26%) + Energy supply of security (6.08%) + Energy supply of production (4.94%) + Energy supply of informatics (2.28%) = 61.56 (%).

As a result, the entire set of indicators of the necessary (functional) resource or the "Matrix of fractal-cluster relations of the social organism" [3], is given by the following weight values for the selected factors of life support (%): E = 61.56; T = 26.19; B = 8.64; P = 3.24; I = 0.37. The relative information entropy calculated from these specific gravity quantities is: $H = -(0.2987 + 0.3509 + 0.2116 + 0.1111 + 0.0207) / \log 5 = 0.617$.

Also, when designing stable systems, namely, the system of economic security of the state, the mathematical law of elementary synthesis proposed by V. Vladimirov should also be taken into account.

The golden ratio corresponds to the maximum entropy (degree of chaos), occupying the place of the arithmetic mean (d = 0.5h) of two extreme, ordered processes: bisection (d = 0) and reduction (d = h).

The evolution and self-organization of viable systems is characterized by increasing the number in unequal portions with ratios proportional to the golden constant. Natural and human-induced processes of cumulative accumulation and systemic transformations are viable only if they correspond to the harmonious golden ratio, a special case of which is the classical golden ratio.

Vladimirov [43] expanded the very concept of the golden ratio: "if the difference d=b–a is equal to half of the harmonic mean h, or if b/a=F, then Whole, More, and Less are necessarily

connected by the golden ratio. The recurrent ratio of the golden section is not only $f_n+2=f_n+1+f_n$ (h=2), but also any other equation of the type $f_n+2=(0.5h)f_n+1+(0.5h)^2f_n$. For example, $f_n+2=2f_n+1+4f_n$; $f_n+2=1.5f_n+1+2.25f_n$; $f_n+2=10f_n+1+100f_n$ is also the equation of the golden section, but for other values (4; 3; 20) of the harmonic mean h".

Vladimirov proposed the law of elementary synthesis: "a system synthesized according to the law of recursion has maximum entropy and dynamic stability in the case when it has a differential equation of the harmonic golden ratio as a mathematical model. Only a special case of this mathematical model is widely known - the Fibonacci equation" [43].

5 Conclusion

The stability of any system, in that case the system of economic security of the state, its ability to self-organize and self-harmonize in conditions of change, as well as the arising of emergent properties in the contour of the operational closedness of the system is determined by its structural proportions. The structural harmony of the system and its superproperties depends on the balance of invariants and variations in its structure. The invariants of the system, or attractors, are the mathematical constants that form the above-mentioned properties. The universal mathematical constant of any system with the properties of self-organization and self-harmonization is the Phidias number, or the constant of the golden ratio. The more proportions of the golden ratio and its derivatives the system contains, the more viable it is. At the same time, the level of system redundancy is also optimized.

The assessment of the state of a system with the properties of self-subordination according to K. Shannon can be determined by calculating the relative information entropy - an integral indicator, the values of which mathematically correspond to the generalized golden sections or fractions of a unit.

Nodes measure the recurrent series of golden sections, - namely 0.5000 ...; 0.6180 ...; 0.6823 ...; 0.7245, 0825 ... , are attractors for integral indicators of systems, in particular, for relative information entropy as measures of the state of any structurally complex system. These values are the basic characteristics of non-equilibrium stable, stationary states, self-organizing and evolving complex systems beyond the equilibrium of the latter, where this indicator, the relative entropy, is equal to 1.

Entropy becomes an expression of the amount of information related in the distribution of system components. Normalized to unity, that is, taken to its maximum value,

$$\overline{H} = -\frac{1}{\log n} \sum_{i=1}^{n} p_i \log p_i \qquad (3)$$

where n is the number of system components

Being a measure of chaos, structural diversity, the maximum of which is reached at $\overline{H} = 1$ - in the state of equilibrium of the system (that is, when the weights pi of its structural components are equal), it is additional to the measure of organization, order, uniformity R and together with it satisfies the law of conservation: $\overline{H} + R = 1$.

The hypothesis regarding the possibility of designing a stable system is based on the primary design, or on bringing into the artificial system for the purpose of re-designing the set of mathematical constants of living nature.

A comprehensive study of the phenomenon of self-organization of economic security is an actual direction of modern theoretical research and has significant applied significance.

The economic basis for analyzing economic security as a self-organized system is transaction costs [7]. Namely the comparison of the price of legality and illegality of using the market mechanism initiates the possibility of improving the management system. An indicator of the presence of problems in the system of managing the economic system in general and the system of economic security of the state is the shadow economy and its level. Business chooses between the price of legality and illegality and this also belongs to the display of integrity.

The constant of the golden section and its mathematical derivatives refer to structural invariants, attractors that should be focused on when designing artificial supersystems and their components.

The stages of the diagnosis and design methodologies are as follows:

1. Assessment of the status of the system (for example - the system of economic security of the state).
2. Evaluation of the time interval between the occurrence and satisfaction of the need (in a specific system).
3. Assessment of the structural and functional state of the system.
4. Assessment of the level of vertical integration of business in terms of industries and sectors of the economy and the share of added value in GDP; using a coenological approach.
5. Comparison of evaluation results with attractors representing a recurrent series of golden sections: 0.500 ...; 0.618 ...; 0.682 ...; 0.725, ..0.825.
6. Control of reliability and viability of the system (estimation of deviations).
7. System testing: entropy (relative information entropy calculation), for compliance with fractal-cluster constants and the law of elementary synthesis.
8. Formulation of the system restructuring (reengineering) project.
9. Implementation of the project and assessment of compliance of the designed system for structural and functional compliance with the constant of the golden ratio and its derivatives.

The methodology formulated by the authors is innovative in terms of tools of analysis and synthesis. Its implementation in the practice of management and practical use (for example, in crisis conditions) will contribute not only to the diagnosis of the state of the economic security system of the state and its components, but also to the development of various target contours according to the principle of "security-danger" in relation to the components of the system. Also, the implementation of the methodology can initiate the direction of conducting research on how to design a sustainable system of economic security of the state - as a component of a hierarchical system of economic security, or as a network of economic security. A logical and structural approach to project management should be a working tool when developing such a project.

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METHODOLOGICAL FEATURES OF MULTILINGUAL EDUCATION OF FOREIGN STUDENTS IN INSTITUTIONS OF HIGHER EDUCATION

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Abstract. Modern trends in the system of higher education are indicated by a new format: the expanding multicultural interaction of the subjects of the educational process. Accordingly, this sets the tasks of a different level for university teachers, since the learning process is the realization of the needs, attitudes, interests, motives of the subjects of educational activity as equal partners. The article shows that the main task of a teacher of a modern innovative university is to stimulate the intellectual and emotional activity of students, taking into account the specifics of linguistic, ethnocultural, and personal-professional characteristics of the subjects of education. The teacher, first of all, should contribute to the search for the student's own individuality and the activation of his personal and professional development. The most significant and new results, as well as their scientific novelty are determined, first of all, by the fact that the study reveals the fundamental didactic conditions for the effectiveness of multilingual education of foreign students, in connection with which a multilingual approach to teaching foreign students is considered as a way to achieve a high level of their professionalism − subject, language, and intercultural competencies.

Keywords: Multilingual education, Worldview, Foreign students, Multilingual picture of the world.

1 Introduction

The internationalization of education is one of the most characteristic features of the development of education in the world in the late 20th and early 21st centuries. Accordingly, for any country, the quality of training of foreign specialists is one of the conditions for the competitiveness of national higher education in the international market of educational services. Therefore, the training of foreign students should be focused on the formation of readiness for the development of new knowledge, 'shaping' of skills and abilities to apply this knowledge in solving specific educational problems and mastering the content of the studied disciplines. The problems that arise in teaching foreign students, especially in the first year of studies, are associated not only with the study of a non-native language, but also with the study of academic disciplines in a non-native language, when a non-native language acts both as a means of communication and as a means of educational and cognitive activity. Namely this actualizes the development of appropriate innovative language technologies for teaching foreign students.

Researchers pay attention to the globalization of all spheres of human activity and, as a result, the revision of priorities in education. In recent years, with an increase in the number of foreign students in universities, the phenomenon of "multilingualism" in the implementation of educational programs cannot be ignored by teachers when developing teaching methods.

Analyzing the works of scientists, it should be noted that most of the research is aimed at the historical aspects of the emergence of "multilingualism" in education, linguistic approaches to the formation of a multicultural personality, and studying the problems of changing the qualitative composition of students in connection with migration processes in the world. At the same time, the theoretical and practical experience accumulated by humanity can be the basis for the design and implementation of modern models of multilingual education. Despite the fact that multilingual learning is analyzed by scientists, there are problems, substantiated by research and related to teaching methods, principles for developing, and evaluating tasks in such learning.

As part of increasing the attractiveness of training areas and specialties of higher educational institutions for teaching foreign students, the task of improving programs implemented in English is being solved. Currently, universities offer different options for solving this problem: the implementation of educational programs entirely in English or "bilingual" programs. The term "bilingual education" is interpreted as "interconnected and equivalent mastery of two languages (native and foreign), mastering native and foreign culture, development of students as a multilingual and multiclturecultural personality [1]. Experts note that the key task of education is to develop a person's abilities and qualities that allow him to carry out professional and social activities in rapidly changing modern conditions. Bilingual and multilingual education is most often implemented in practice-oriented higher education programs with a large amount of practical training on the basis of specialized organizations. It should be noted that at present the situation in some cases is such that neither the relevant organizations nor the practitioners involved in the implementation of programs are, to a certain extent, ready for professional communication in English.

Another problem can be formulated taking into account the fact that educational programs, including "bilingual" ones [18], simultaneously teach both students for whom English is their native language and those who studied it in order to get an education in another country. Thus, it is actually talking about "multilingual" education, since two or more languages are involved in the educational process. In the future, under multilingual education, we will understand the process of familiarization with the world culture by means of several languages, while the languages used and studied by students are considered as a resource for mastering the field of professional and special knowledge.

The formation of a multilingual picture of the world among university students is a process of developing ideas about their own and foreign professional cultures, gaining experience in interacting with foreign colleagues based on verbal and non-verbal means, supplementing the sets of meanings behind a certain concept in different languages, as well as acquiring new concepts and stable speech turns, actively used in the world professional vocabulary. At the same time, the model for the formation of a multilingual picture of the world among students is focused on the development of their language training and future career self-determination in the global professional space. The structural components of the model are: target, content, technological, and productive blocks.

The main types of students' multilingual picture of the world are as follows [6, 13-15, 20]:

- Diffuse multilingual picture of the world is characterized by insufficiently clear ideas about the need for foreign languages in a professional career, a low level of motivation in learning an additional foreign language, in addition to English; lack of reflection of professional development;
- A mosaic multilingual picture of the world is a heterogeneous image in which certain criteria dominate: axiological can be quite high (the student has professional knowledge, competencies), but the prospects are at a low level of development (there are no ideas about the value of a foreign language in a professional career), respectively, the reflexive criterion is also low. Another student may have a different combination of characteristics of a multilingual picture of the world;
- A holistic multilingual picture of the world is an integral formation in the mind of the individual, including a harmonious combination of such criteria as axiological, semiotic, promising, and reflexive.

Thus, taking into account the personal characteristics of students and creating a favorable environment for multilingual communication is an important scientific and practical task in modern multilingual education.

2 Method

The methodological basis of the study is the provisions on the versatile and harmonious development of the individual, cultural and spatial; the paradigm of education, the conditionality of the picture of the world of the individual by its active participation in activities and communication. The theoretical basis of the study was:

- Ideas of "dialogue of cultures" and the concept of multicultural education
- Theoretical foundations of personality-oriented socio-cultural, communicative directions in pedagogy
- The theory of continuous education, the concept and model of standardization of education.

To solve the tasks of the study, in particular, the survey method was used.

3 Results and Discussion

The teacher has to take into account the personal characteristics of the students and to ensure the effectiveness of training, use different technologies for presenting educational information. In our opinion, when using the methodology of multilingual education, for example, in mathematics or other STEM disciplines, it is advisable to organize the educational process of foreign students taking into account the characteristics of the leading channel of information perception. As a rule, in pedagogical practice, the differentiation of students into small groups is carried out after a special analysis based on psychological observation, for example, using a diagnostic test for the dominant perceptual modality [5, 9].

Almost every teacher of a modern university has questions:

- What is the mechanism for conducting a dialogue of cultures in the learning process, if there are representatives of different cultures in the same audience?
- How to resolve ethno-cultural differences, if they appear in the educational process?
- How to maintain a favorable psychological microclimate in a group of students of different nationalities?
- What factors of personal, professional, and cultural development of students are especially important when organizing training in a multicultural educational environment of a university?
- What features should be taken into account when organizing the process of teaching students (representatives of different nationalities and ethnic cultures) and what psychological and pedagogical conditions should be created for successful educational activities, taking into account the identified features of learning?

An empirical study helped answer these questions, the main directions of which were the following aspects:

1. Studying the problems of general and, in particular, communicative training of "native" and foreign students at the university.
2. Identification of the peculiarities of teaching students - representatives of different nationalities and cultures in the university of a particular country
3. Taking into account these features, specification of the role of the teacher teaching students in the multilingual educational environment of the university.
4. Identification of the features of the multilingual (multicultural) educational environment of the university and consideration of its creative potential in educational activities.

To obtain answers to the questions posed above, we conducted a survey in three thematic groups: for teachers of a foreign language and specialized departments; foreign students; Polish and foreign students. The survey involved teachers and students of three universities in Poland. The study was conducted online using the Zoom platform and email. In total, 450 students (210 foreign students and 240 Polish students) and 114 teachers (73 teachers of foreign languages and 41 - from profiling departments) participated in the survey.

In order to identify the features of teaching students in a multilingual environment of the university, teachers were asked to answer the following questions:

What factors of personal and professional development of students in the organization of training in a multilingual educational environment of the university are especially important?

How are teaching materials used in the organization of classroom and independent work of students (in groups with foreign students) (for example, in foreign language classes), taking into account the national and cultural characteristics of students?

Do university professors consider the following drawbacks as main problems of organizing student learning in multilingual conditions:

- low level of Polish language proficiency by foreign students;
- insufficient preparation of teachers for the organization of teaching students in groups with foreign students;
- low level of English language proficiency of students;
- lack of educational and methodological material;
- insufficient consideration of the individual characteristics of students;
- unfavorable psychological microclimate in a group of students, due to their ethno-cultural characteristics?

Is it enough for a teacher working in a multinational group to know about a "foreign" culture?

The teachers were asked, based on their personal experience, to identify other problems related to the organization of the educational process in a multilingual educational environment.

As a result of the analysis of the answers, the following data were obtained, which contribute to the identification of the peculiarities of students' learning in the multilingual educational environment of the university.

The majority of teachers (91%) note that among the most important factors in the personal, professional, and cultural development of students when organizing the learning process in a multilingual educational environment of a university, there is the creation of special pedagogical conditions for realizing the creative potential of students.

Of particular importance, according to the respondents (86%), is the creation of a more favorable psychological microclimate in the learning process. The importance of a competent pedagogical dialogue, pedagogical interaction and the presence of a positive emotional culture in the group (86%) are noted. Teachers also note (100%) the need to take into account the national characteristics of a particular culture, to instill tolerance in students' communication. It is also important that the teacher accepts the ethnic culture of students (74%), the ability to manage interpersonal interaction of the subjects of the educational process, teaching students foreign language professional communication and cooperation (69%).

The majority of teachers-respondents (82%) use texts of a professional orientation, taking into account the national characteristics of students (the discipline "Foreign Language in Professional Communication") and audio and video materials that take into account the interests, needs of students, their individual, linguistic, and cultural characteristics. Interestingly, 76% of respondents apply guidelines aimed at developing foreign language competencies in intercultural interaction.

Most of the respondents consider the low level of foreign students' knowledge of Polish (93%) and the low level of English (72%) to be the main problems in organizing the process

of teaching students in the multilingual educational conditions of the university.

In turn, for the possible optimization of the educational process in the multilingual educational environment of the university, obtaining information about the level of scientific activity, general and, in particular, communicative (language) training of international students is necessary for studying the features of the intercultural educational environment; foreign students were asked to answer questions (they were asked to arrange the questions by difficulty level from 1 to 8):

- What is the most difficult thing for you to learn?
- How, in your opinion, it is possible to overcome the arisen difficulties in training?
- Do you turn to your classmates for help?
- How would you rate your knowledge of Polish and English?
- What kind of relationship do you have with teachers and classmates?
- Do teachers provide assistance in learning?
- What types of work do you prefer (individual, group, pair, consultations with a teacher, etc.)?
- In which group would you prefer to study (with Polish students, with students of different nationalities)?
- Do you have enough educational and methodological support from teachers and fellow students?
- Do you show interest in scientific work, do you participate in conferences, olympiads, presentations, etc.?

The data obtained during the survey showed that the majority of respondents (78%) experience learning difficulties. This is especially evident when doing independent work and homework, which respondents associate with an insufficient level of knowledge of the Polish language.

When asked about the activity in the classroom, only 47% of students answered that they show a constant interest in learning in the classroom. The majority of students (92%) believe that it is necessary to strengthen additional individual consultations with teachers in the studied disciplines.

Only 49% of the respondents rate their knowledge of English as satisfactory (this assessment fully coincides with the answers of teachers).

When answering the question about the relationships that have developed with classmates and teachers, 66% of students mark them as positive, although some communication barrier still remains, while foreign students prefer to communicate with each other more. At the same time, 45% of the respondents constantly turn to classmates and teachers for help. Almost all students say that teachers always provide assistance in completing academic tasks (92%).

More than half of the students (63%) try to participate in scientific conferences, olympiads, presentations, business games; 58% prefer to study with Polish students and students of other nationalities.

When analyzing the answers, it turned out that some of the foreign students (24%) still experience difficulties in applying educational and methodological literature, evaluating it as a necessary support in the educational process. To the question "Do you like studying at the university?" 94% of respondents answered in the affirmative manner.

In parallel, a survey was conducted in groups where Polish students and students of different nationalities study together, in order to discuss issues related to the problems of organizing intercultural communication in professionally oriented education and creating a favorable psychological and pedagogical climate in the group. The students had to assess the organization of the resource and methodological support of the educational process at the university on a 100-point scale (the maximum score was 100 points). Below, there are the positions that students had to evaluate:

- Evaluation of the proposed educational and methodological material and tasks that take into account national, cultural, and linguistic characteristics in groups where students - representatives of different cultures are trained (the survey was conducted in relation to the disciplines of the humanitarian cycle).
- The possibility of learning with the help of modern distance technologies, Internet resources, etc.
- The effectiveness of teacher consultations, the use of memory algorithms, individual reference schemes that help to independently solve educational problems in classroom and extracurricular activities.
- The level of understanding of ethno-cultural differences in a group of students of different nationalities.
- Evaluation of the psychological microclimate in the group where students of different nationalities study.
- The desire to communicate with fellow students outside the classroom.
- Communicating with each other in Polish.
- Communicate with each other in English.
- The possibility of solving emerging problems of intercultural communication with fellow students together with the teacher.

After analyzing the students' answers, one should first identify the positions that were rated with the maximum number of points (average): a favorable psychological climate that provides a high level of tolerance and understanding of ethnocultural differences in groups where representatives of different nationalities study (65 points); the ability to solve emerging problems of intercultural communication (with fellow students and teachers) and the desire to communicate with fellow students outside the classroom were assessed by the same number of points (72 points). The majority of respondents rate learning with the help of modern distance technologies as satisfactory (37 points); they also are satisfied with tasks of an intercultural communicative nature, taking into account national, cultural linguistic characteristics in groups where foreign students study (42 points), memory algorithms, reference schemes that help the student to independently solve the set educational problems, are used by the majority of respondents (average score 75). It should be noted that communication in Polish received an average of 43 points; communication in English is marked by the lowest score (24).

The data obtained as a result of the survey on three types of questions made it possible to identify moments in the organization of the educational process of students in the multilingual environment of the university, which require a special approach and attention.

The analysis of the information obtained from the survey of students and teachers described above, the extensive material studied on the topic of the study, as well as our own practical experience, served as the basis for the study to identify the features of the learning process of students in the multilingual environment of the university. In the process of research work at this stage, a preliminary conclusion was made that these features are associated with a pronounced specificity in sociocultural, interethnic, psychological and pedagogical formats and require a change in the pedagogical and methodological organization of the learning process.

The studied features are formulated as follows: the learning process in the multilingual environment of the university is projected not on the regional principle (description of ethnic characteristics), but on the learning process in conditions of real relationship and interaction with representatives of other cultures: the design and implementation of the pedagogical process are based on cooperation with the environment, taking into account the emotional-value, ethno-cultural actions of students in intercultural communication.

The communicative dominant of the educational process is pedagogical dialogue as a component of intercultural multilingual interaction [1, 16]. In the conditions of a multilingual educational environment of a university, it is

advisable to consider pedagogical dialogue as an implemented productive pedagogical cooperation of all subjects of the educational process: the educational function of a teacher in a multicultural environment of a university, on the one hand, and, on the other hand, the response attitude of students to their environment as a carrier of specific ethnocultural attitudes, expressed in readiness for co-creation and interest in learning.

According to the logic of the study, the notion of "attitude", which is interpreted from the standpoint of a multilingual educational environment, is of particular interest. More specifically, in this context, we are talking about an interethnic attitude: an attitude regarding a tolerant, respectful attitude towards people belonging to "foreign" ethnic groups and brought up on the samples and values of a different culture. This concept was studied quite deeply earlier in the works of a number of scientists.

At the origins of the concept of "attitude", there is the German scientist L. Lange. The concept introduced by him into scientific circulation became the basis for the further systematic development of the theory of attitude, presented by the school of D. N. Uznadze. The scientist and his followers considered the attitude as processes and phenomena of a general psychological nature [2].

Some scholars propose to understand a socially conditioned attitude as the readiness and predisposition of an individual to perceive any external information, including social information, on the basis of an already formed own position and previously acquired experience of interpersonal communication [5, 22].

The analyzed approaches of researchers to the strategy of intercultural dialogue and tolerance [6-8, 11] allow concluding that interethnic attitudes can be formed, to identify mechanisms for their harmonization in a multicultural educational space. The theory of social attitudes contributes to the identification of mechanisms for the formation of a positive intercultural dialogue, since ethnic attitudes, in fact, cannot be neutral, and, depending on emotional richness, are divided into positive and negative. In the conditions of modern education, academic exchanges, it is important to create such an educational environment that would help eliminate possible interethnic misunderstandings, sometimes aggressiveness, contribute to the formation of interethnic tolerance, which is the basis of a constructive intercultural dialogue and the inclusion of subjects of the educational process in socially significant and positive activities.

Identification of the peculiarities of the process of teaching students in a sociocultural, interethnic environment contributed to the development of a set of pedagogical conditions, which are an important aspect of updating the process of teaching students in a multilingual environment of a university.

The relevance of the problem of forming a multilingual picture of the world among students of non-linguistic universities stems from the universal nature of the dialogue, which acts as a semantic content; professional and personal culture. At the same time, the study of the specifics of the formation of a multilingual picture of the world among students is based on the understanding that their goal is to master the profession, professional communications, and develop a culture of dialogue in the international professional space. V.S. Bibler and other scholars showed that modern education and modern psychology should correspond to the peculiarities of human thinking and essential forms of his activity in the 21st century and that the modern logic of thinking consists in a "dialogue of different cultural meanings of being", which, under appropriate conditions, can be embodied in a multilingual picture world of students [2, 21, 22].

In the conditions of multilingual education, methodological approaches for presenting educational material in the discipline under study become especially relevant. "In order for the material to be assimilated as fully as possible, it must be presented in such a way that the human cognitive system perceives it as simply and quickly as possible, without spending too much effort on understanding the essence" [18]. In order to further unambiguous understanding of the issue under consideration, let us turn to the definition of the concept of "cognitive," that is, associated with cognition, with thinking. Scientists have identified important features of the study of mathematics and other natural science disciplines by foreign students in universities [5; 7; 12; 17]. The authors offer various methodological approaches in teaching mathematics:

- Using pedagogical techniques and methodological support, taking into account the multilingual composition of students (didactic materials are offered in several languages);
- Traditional education with enhanced language training and innovative approaches to explain to students in a non-native language the meaning and interpretation of basic mathematical terms, definitions, theorems, and formulas.

Let us note that both approaches are effective in teaching foreign citizens. In addition, the work [4] proposes a universal model of blended learning in the natural sciences, which allows it to be transformed for the study of mathematical disciplines. To achieve the planned learning outcomes, this model allows varying the volume of educational material offered in the traditional form and using information and communication technologies, taking into account differences in the perception of educational information by students.

Electronic resources developed taking into account the principle of cognition, in terms of the effectiveness of acquiring new knowledge, will be quite useful in teaching foreign citizens. With this approach, the studied material is built and arranged in such a way that the attention of students is concentrated on the main points of the educational material, on the relationship between sections of the discipline (module), on interdisciplinary interactions within the educational program, which allows students to understand the usefulness and applicability of new knowledge for further learning and in professional activity [18].

Within the framework of the "engineering of learning" paradigm [22], it is necessary to focus on the creation of an educational environment that allows students to set their own learning goals focused on a qualitative result. In addition, it is important to design the content of the information and educational environment [6], which contributes to the active educational and creative activities of students.

The technological basis for the formation of a multilingual picture of the world among students at the university is pedagogical technologies (individual translation, collective translation, chat, travel, videos, interactive excursions, trainings), which involve the implementation of an individualized system of events aimed at achieving the set goal. The leading role in these pedagogical technologies is played by the interaction between the student and the teacher, which is represented by three types [8, 9, 19]:

- Training and feedback, when the prepared educational materials allow students to achieve the educational goal of learning a foreign language and the career goal of getting to know the language of the intended professional and personal communication;
- Learning support offering additional elective help to students who need it, when the teacher, together with the student, creates an individual educational trajectory that details their personal curriculum, the support that the mentor will provide, and the success in the establishment of a multilingual picture of the world, which they intend reach;
- Help that allows students to contact the teacher when they have difficulties, when there are tasks that they cannot cope with on their own, or when any parts of the course require clarification in the curriculum or career plan.

Of great scientific and theoretical importance is the development of a model for the formation of a multilingual picture of the world among students, which is focused on the development of their language training and future career self-determination in

the global professional space. The integrative nature of the model as a complex, multidimensional phenomenon lies in the fact that it is not reducible to the totality of its components. The model provides for the organization of language training based on the following principles:

- The integrity of the preparation of the student as a future professional;
- -Problems of education, which consists in the consistent study of those problems and ways to solve them that exist in the professional field chosen by the student;
- The unity of theoretical and practical activities, manifested in the relationship between the theoretical study of the disciplines of the subject block and a foreign language;
- Motivation as a conscious professional perspective.

Researcher D.A. Kolb, one of the most prominent American educational theorists, whose work on student learning styles influenced the organization of the educational process in many educational institutions of the world, developed a cyclic model of cognition (Kolb model), the application of which in the educational process was developed in two directions [18]:

- Development and experimental verification of the theory of individual learning styles of students;
- Development of the theory of professionally oriented education.

Both theories are successfully applied, especially when studying at advanced training courses or mastering new specialties. At the same time, the use of the model in the classroom at a university encounters a difficulty [14] due to the lack of precise instructions for its use. This obstacle was overcome by the American teacher B. McCarthy for a slightly different model of cognition with the help of a system of four questions, which was called the MAT-system (MAT - from the abbreviation of the word "matter").

The learning technology using the McCarthy model is based on the cyclical asking of four questions: "Why?", "What?", "How?", "What if?" and clarifying the roles of the teacher and students [9]. The 4MAT-system guided the passage of the cognition cycle in four sectors well and therefore was adopted as an additional tool for conducting classes using the cognition model, the Kolb model. An attempt was made to address the little-known application of the Kolb model to the teaching of economics. The use of this model is associated with the formation of a certain style of cognition for students of economics, which ensures professionally oriented teaching of economic disciplines. In the context of the introduction of new educational standards, this is significant, since the emphasis is made on learning outcomes that are close to production situations. The successful application of this model in teaching students of economic specialties provides a solid basis for its implementation in the teaching of STEM disciplines, as well as disciplines in the humanities. With this approach, especially within the framework of project-based teaching strategies, the specific ethnocultural style of perception and communication, the "attitudes" of each student are taken into account, and at the same time, these styles and attitudes converge, which leads to the formation of a multilingual picture of the world as a whole in a group of students and, accordingly, facilitates multilingual learning.

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COMPREHENSIVE RATING ASSESSMENT OF THE LEVEL OF SOCIAL SECURITY IN THE LABOR MARKET OF UKRAINE AND THE EU

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Abstract: The article identifies the features of a comprehensive rating assessment of the level of social security in the labor market, which involves assessing employment security indicators and wage security indicators with the separation of indicators of incentive and disincentive effects and grouping on this basis (categorical and zonal) for assessment of objects. This approach allows assessing the level of social security in the labor market in the regional dimension, determining the region's affiliation to a specific category and threat zone and justifying a set of management measures differentiated by category of regions. The current trends in the development of European and national labor markets in the context of their impact on social security, a comprehensive rating assessment of social security in the labor market, which divided the regions of Ukraine into six zones (categories) depending on the highest, high, medium, below average, low or lowest rating factor, are revealed. In order to attract positive foreign experience in ensuring social security in the labor market, a comparative analysis of the labor market of Ukraine and the EU is carried out using the method of comprehensive rating assessment of employment security and wage security indicators. It is determined that, in order to improve the situation and neutralize regional disparities, it is necessary to form an effective state policy that takes into account not only direct but also indirect factors influencing the labor market, as well as improving employment and welfare of Ukraine

Keywords: Social security, Labor market, Social security in the labor market, Employment security, Salary security, Threats to social security on the labor market, Comprehensive rating assessment.

1 Introduction

Given the instability of the functioning and development of socio-economic relations, the problem of ensuring a high standard of living, neutralization of negative phenomena and threats in the social and labor sphere, raising social standards becomes especially relevant. The solution of labor market problems as one of the main mechanisms of effective reproduction and development of the country's labor resources deserves special attention. Unfortunately, the current state of the Ukrainian labor market is characterized by increasing crises, including high unemployment and shadow employment, increasing labor migration, in particular highly skilled labor, declining incomes and quality of life, the spread of poverty. An important role in ensuring social security and the appropriate level of development of the labor market of Ukraine in the integration process is played by the development of the European labor market, characterized by increasing migration trends through free movement of labor within the EU, expanding professional and academic mobility associated with integration processes in all spheres of economic activity. At the same time, there is a risk of rising unemployment and structural imbalances in the labor market due to the relocation of cheap labor from EU member states that have recently joined the community. According to Ukrainian researchers, the main trends in the EU labor market are: rising structural unemployment, especially among unskilled workers and young people; a significant influx of migrants across EU borders, which changes the model of reproduction of labor resources (while attracting highly qualified migrants and young people); overcoming discrimination and strengthening gender equality; increasing the mobility of labor resources within the EU; increasing the outflow of highly qualified professionals outside the EU and increasing dependence on the influx of such migrants from third countries; spreading the trend of mass retraining of specialists [1].

The overall impact of globalization on Ukraine's economy "is characterized by increased competition due to the liberalization of the government's protectionist policy towards domestic producers and the entry of foreign companies into the market"; in addition, "there are certain structural changes in the economy: changes in the share of different types of economic activity in GDP; redistribution of markets between domestic and foreign producers, which leads to the cessation of economic activity of uncompetitive enterprises, reducing wages in some sectors of the economy and increasing the number of laid off workers" [17]. All this, in turn, requires the formation of mechanisms for adapting the national economy and labor market to global realities.

In order to solve the existing problems, it is advisable to form an effective mechanism for social security in the labor market based on a comprehensive assessment of key indicators and continuous monitoring of social and labor relations in an unstable environment.

2 Materials and Method

Diagnosis of social security, as well as any other socio-economic phenomenon, is carried out according to the appropriate methodology, which is a set of techniques, methods of calculation, and rules of the study.

Among the scientific works of foreign researchers on the issues of labor market security and its evaluation, there are publications of A. Hijsen and B. Menigert, who believe that "labor market security covers those aspects of economic security that are associated with the risk of job loss and its consequences for workers and their families" [11]. According to researcher K. Crouch, in modern conditions it is advisable to consider the concept of flexible security, which takes into account the requirements of labor flexibility, as traditional measures to protect workers in the labor market prevent possible positive changes [6]. Foreign scientists T. Wilhagen and F. Tros consider it appropriate to assess: occupational safety related to staying at a particular workplace, as well as employment security, which refers to the reliability of permanent work, not necessarily in one position. Also, income security os considered (reliability of a constant flow of income, regardless of whether a person works or not), and "combined" security, i.e., the ability to achieve work-life balance [22, 23].

Analysis of the international practice of social security assessment, today, unfortunately, shows that there is no single comprehensive methodology for its analysis. At the same time, no less important global indicators are identified, which indicate the state of social security among other economic issues studied. The most indicative global indicators in the context of determining the state of social security are the Global Competitiveness Index, the Social Progress Index, the Human Development Index, and the Welfare Index.

According to the Global Competitiveness Index (GCI) used by the World Economic Forum (CEF) to rank countries, this index includes 113 components, summarized in 12 benchmarks that characterize the level of competitiveness of the participating countries. Among the identified evaluation parameters, there are the quality of institutions, infrastructure, macroeconomic stability, health care and primary education, higher education and training, efficiency of goods and services market, labor market efficiency, financial market development, level of technological development, domestic market size, competitiveness of companies and innovation potential [21]. Considering this methodology in the context of social security, one should note its importance in terms of diagnosing components of the labor market, development of education and health care, infrastructure and institutional support. Based on the key role of employment and wage security, which contributes to taking into account the social interests of citizens in the use of human resources and the formation of a decent level of welfare, it is advisable to consider in more detail a set of indicators reflecting labor market development.

An important global indicator that determines the state of social security at the international level is the Social Progress Index

(SPI), developed by professor of Harvard University M. Porter in 2013. This indicator determines the level of welfare of the population, the state of basic needs of people, as well as opportunities and prospects for human development in 149 countries (according to 2019). Based on the importance of social development of society and taking into account the social interests of the population, social progress has become an important task for countries, businesses, and society. The Social Progress Index assesses the effectiveness of countries in many aspects of social development, which provides an opportunity to study both absolute and relative indicators, improve public policy in the social sphere and identify priority action programs to improve social and economic indicators [24].

An important indicator of social security in the context of the protection of social interests of the population is the Human Development Index (HDI). This is the final indicator for assessing long-term progress in the three main areas of human development: long and healthy life, access to knowledge, and a decent standard of living [18].

One of the global indices that takes into account the criteria of social development and social security is the Welfare Index - an indicator calculated annually by the British Legatum Institute; it includes indicators of security, personal freedom, governance, social capital, investment environment, business environment, access to markets and infrastructure, quality of economy, living conditions, health, education, environment [22]. We agree with the opinion of such scientists as S. Kozlovsky, L. Nikolenko, O. Peresada, O. Pokhilyuk, O. Yatchuk, N. Bolgarova, O. Kulganik, on the need for a comprehensive approach to assessing the level of welfare of countries. Thus, in order to assess the country's well-being, it is advisable to use indicators that characterize economic and social development, including the Economic Freedom Index (IEF), Global Peace Index (GPI), Democracy Index (DI), Corruption Perceptions Index (CPI), Human Development Index HDI), Welfare Index (PI), Global Competitiveness Index (GCI), subsistence level (LW) and standard of living (WI) [15].

In addition to the above indicators, which make it possible to diagnose the social sphere and make appropriate international comparisons, the definition of methods for assessing the level of social security in the labor market as an important component of the security mechanism is particularly relevant. Experts of the International Labor Organization have determined their own methodology for calculating the Labor Market Safety Index (LMSI). In a relevant study conducted in 2004 among 94 countries, the leading positions were occupied by the economically developed countries of Western Europe, Canada, and Japan [11].

The methodology for assessing labor market security using the Labor Market Welfare Index, proposed by the Center for the Study of Living Standards in Canada, is noteworthy. The characteristics of this technique are described in detail in the monograph of Hetman "Innovative mechanism of labor market regulation". Thus, the ILMW contains the following 4 components: Labor Market Income (LMI), which includes wages per employee (LCPW) and hourly wages (LCPH); human capital (HC) with a component - secondary education (EA); Labor Market Equality (LME), which includes hourly wage inequality (HWI) and falling low-wage employment (LWE); labor market security (LMS), which includes the risk of unemployment (RU), health risks from employment (RH), the risk of poverty in retirement (RPR) [12]. The above methodology provides an opportunity to comprehensively identify risks and threats to the development of the labor market, but requires adaptation to the practice of application in Ukraine, based on available information and diagnostic needs.

Of particular importance in modern conditions is the development of such methods of social security assessment, which allow identifying major threats and their severity, comparing the dynamics of integrated indices with the corresponding thresholds and, on this basis, conducting a scenario analysis of social security trends in the future. Various

author's approaches provide performance of the specified tasks. In particular, Grishnova and Kharazishvili developed a structure and list of indicators taking into account three components of social security, including: living standards, demographic component, and quality of life [14]. At the same time, the standard of living is the most influential factor in regulating social security, on which other indicators depend - the demographic component and quality of life.

In Ukrainian practice, the Methodology for calculating the level of economic security of Ukraine is used, which, among other important groups of indicators, includes social security indicators. This methodology was first approved by the Ministry of Economic Development and Trade of Ukraine in 2007 (Order No. 60 of March 2, 2007) (On approval of the Methodology for calculating the level of economic security of Ukraine, 2007). In 2013, the order of the Ministry of Economic Development and Trade of Ukraine approved a new version of the Guidelines for calculating the level of economic security of Ukraine (order No. 1277 of 29.10.2013), which defined 9 components of economic security (industrial, demographic, energy, foreign economic, investment-innovative, macroeconomic, food, social, financial) [19]. The range of values of indicators is much wider than in the previous version of the Methodology, as it varies by 6 levels: optimal, satisfactory, unsatisfactory, dangerous, critical, absolutely dangerous. In our opinion, the relevant list of evaluation indicators does not fully satisfy the need to identify key problems of the labor market, in particular in the context of its social security.

At the same time, the topical issue today is the formation of methods for assessing social security in the labor market, taking into account the regional peculiarities of the development of relevant components, which may reflect the level of employment security and wage security. Thus, the aim of the study is to conduct a comprehensive rating assessment of the level of social security in the labor market of Ukraine and the EU.

3 Results and Discussion

In order to analyze the level of social security in the labor market of Ukraine and the EU, we offer an author's approach to conducting a comprehensive rating assessment [5].

The main differences of this technique are:

1) Emphasis on indicators that reflect security threats and risks.
2) Versatility and flexibility of the methodology, which allows to vary (change) the indicators included in it, in accordance with the purpose and objectives of the assessment.

Thus, in the framework of a comprehensive rating assessment, it is advisable to determine the characteristics of the labor market regarding its main indicators, which have both positive and negative impact on the level of social security in the labor market. It is also advisable to conduct assessment of "problematic" indicators both in the field of employment security and in the field of wage security, as well as to determine the place of each region of Ukraine in the overall rating and assigning it to the appropriate zone (category). Our proposed procedure for conducting a comprehensive rating assessment includes six stages. First, key indicators are selected and divided into stimulants (indicators that have a positive impact on the level of social security in the labor market) and disincentives (indicators that have a negative impact, respectively). Then, the necessary statistical information is collected and the numerical values of the indicators are determined, after which the reference values for each indicator are selected. An important stage of the assessment is the standardization of indicators, which is the calculation of the ratio of actual regional indicators to the reference. This procedure is carried out in order to comply with the requirement of uniformity of measurement of the studied data set. That is why it is mandatory to take into account the results of standardization when calculating the rating, according

to which the ranking of regions and determining the place of each of them in the national ranking is carried out [3, 4].

We consider it appropriate to select 6 key indicators of labor market efficiency, including employment security indicators (i.e., those that provide information on the level of supply and demand of labor and reflect the phenomena of employment and unemployment) and indicators of wage security (they provide information on the state and problems in the field of payment of wages, which is the price of labor in the labor market). In addition, all 6 indicators are divided into indicators whose high values have a positive impact on the level of social security in the labor market (stimulants) and indicators whose high values have a negative impact (disincentives).

Therefore, a comprehensive rating assessment will be based on the following indicators: employment rate, % (stimulant in the field of employment security); unemployment rate, % (disincentive in the field of employment security); average number of employees, persons (stimulant in the field of employment security); average monthly nominal salary, UAH (payroll incentive); real wage index, % (incentive in the field of wage security); the ratio of the average monthly nominal wage and the subsistence level per able-bodied person, times (stimulant in the field of wage security). Thus, the analysis offers three indicators in the areas of employment security and wage security with a focus on stimulus indicators.

In order to comprehensively study the state of social security in the labor market in the regions of Ukraine, we consider it appropriate to conduct research over several years to study the dynamics of improvement / deterioration of the situation.

The relevant indicators selected for preliminary analysis and rating are shown in Tables 1 and 2.
Taking into account the main indicators, their reference values were selected, which are the largest (maximum) value for each stimulant indicator, and the smallest (minimum) value for the disincentive indicator.

Table 1: Summary data on employment security indicators in 2018

Regions	Occupation rate, %	Average number of employees, thousand people	Unemployment rate, %
Ukraine	57.1	7662	8.8
Vinnytsia	56.8	266	9.9
Volyn	49.5	170	11.4
Dnipropetrovsk	58.6	775	8.0
Donetsk	50.0	382	14.0
Zhytomyr	57.5	207	10.4
Transcarpathian	54.5	162	10.0
Zaporizhya	56.7	367	9.9
Ivano-Frankivsk	55.6	191	7.8
Kyiv	58.5	354	6.3
Kyrovograd	54.5	176	11.6
Luhansk	56.9	112	15.1
Lviv	56.8	474	6.9
Mykolayiv	58.1	193	9.6
Odessa	57.2	422	6.4
Poltava	55.1	301	11.2
Rivne	56.8	175	9.7
Sumy	58.4	202	8.7
Ternopil	52.7	147	10.4
Kharkiv	61.4	562	5.3*
Kherson	57.5	158	10.3
Khmelnytsky	55.9	204	8.4
Cherkasy	57.7	217	9.6
Chernivtsi	57.2	115	7.9
Chernihiv	57.3	184	10.6
City of Kyiv	62.6*	1149*	6.2

* reference values of indicators
Source: Economic Activity of the Population of Ukraine, 2019; Labor of Ukraine, 2019

Therefore, we can conclude that the highest rates (reference values) belong to the following regions: by employment level - Kyiv (62.6%); by the average number of employees - Kyiv (1149 people); by unemployment rate - Kharkiv region (5.3%).

According to labor security indicators, the highest (reference) values of indicators in 2018 were observed in the following regions: according to the real wage index - Poltava region (115.9%); on the average monthly salary - the city of Kyiv (UAH 13,542), on the ratio of the average monthly salary and the subsistence level per able-bodied person - the city of Kyiv (7.4 times).

Table 2: Summary data on wage security indicators in 2018

Regions	Real wage index, %	Average monthly salary, UAH	The ratio of average monthly wages and subsistence level per 1 able-bodied person, times
Ukraine	112.5	8865	4.8
Vinnytsia	115.5	7801	4.2
Volyn	112.7	7324	4.0
Dnipropetrovsk	115.8	8862	4.8
Donetsk	110.2	9686	5.3
Zhytomyr	114.5	7372	4.0
Transcarpathian	112.5	8070	4.4
Zaporizhya	114.8	8726	4.7
Ivano-Frankivsk	112.5	7551	4.1
Kyiv	113.8	9097	4.9
Kyrovograd	112.5	7191	3.9
Luhansk	111.9	7365	4.0
Lviv	112.7	8001	4.3
Mykolayiv	110.3	8160	4.4
Odessa	110.5	8011	4.4
Poltava	115.9*	8375	4.5
Rivne	111.6	7469	4.1
Sumy	110.6	7324	4.0
Ternopil	113.7	6969	3.8
Kharkiv	110.1	7657	4.2
Kherson	109.5	7058	3.8
Khmelnytsky	111.8	7346	4.0
Cherkasy	111.4	7478	4.1
Chernivtsi	112.7	6991	3.8
Chernihiv	111.7	6995	3.8
City of Kyiv	110.2	13542*	7.4*

* reference values of indicators
Source: Economic Activity of the Population of Ukraine, 2019; Labor of Ukraine, 2019

Relevant data were used as a basis for further standardization and calculation of the rating by the formula:

$$Ri = \sqrt[n]{\sum_{i=1}^{n}(1-Xij)^2} = \sqrt{(1-X1j)^2 + (1-X2j)^2 + (1-X3j)^2 + ... + (1-Xnj)^2} \quad (1)$$

where Ri is the rating for the i-th region;

Xij - standardized j-indicators for the i-th region.

It should be noted that the region whose value Ri is the minimum has the highest rating, i.e, the regions are ranked in descending order of rating. The results of the rating are shown in Figure 1.

According to the results of the rating, the highest positions (first place) in the ranking in 2018 belonged to Kyiv, with a significant gap from other regions, due to high performance on almost all indicators of social security in the labor market, except the real wage index. High positions (respectively second and third place) were occupied by Dnipropetrovsk and Kharkiv regions, proving the close digital values of the overall rating. Among the positive factors of social security in the labor market in Dnipropetrovsk region, it is worth noting a fairly high among other regions index of real wages (115.8%), average monthly wages (8862 UAH), the average number of employees (775 thousand people), employment rate (58.6%). Positive factors in the development of the labor market of Kharkiv region indicate

the lowest unemployment rate in the country (5.3%) and high employment (61.4%). Most of the stimulus indicators studied in the above-mentioned regions exceed the average level in Ukraine, while the disincentive indicator - the unemployment rate - is much lower than the national average.

Thus, we can conclude that there are favorable factors for the development of the labor market and its social security in industrialized regions, which accumulate financial and labor resources, have significant potential for attracting investment and are leaders in filling the country's budget. The leadership of Kyiv in the overall ranking can be explained by a number of positive features, including a high level of wages, growing demand for labor (in particular, high skills), high level of technological equipment of workplaces, availability of wide opportunities for realization of labor potential and development of labor resources. Namely this list of factors attracts labor from all regions of Ukraine. At the same time, the high cost of living in the capital somewhat neutralizes the positive value of the high average monthly wage, which is reflected in the real wage index, that is lower than the national average.
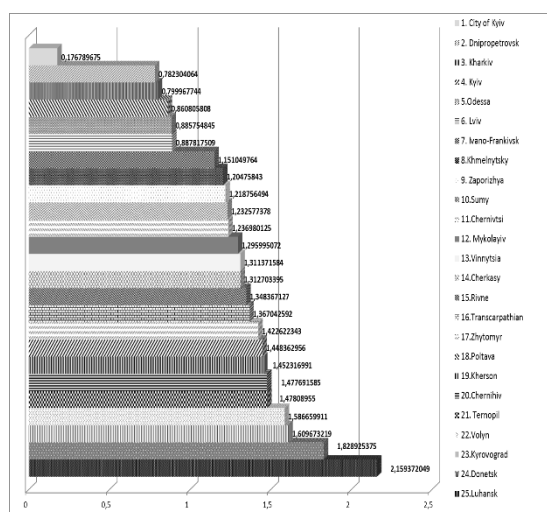

Figure 1. Results of the rating assessment of the level of social security in the labor market of Ukraine in 2018

Source: author's development

In the last places of the rating in 2018, there were Luhansk and Donetsk regions (25th and 24th place respectively). Among the negative factors that indicate a low level of social security in the labor market, one should note the critical level of unemployment, which is the highest in the country (in Lugansk region - 15.1%; in Donetsk region - 14%), low employment (56.9% and 50% respectively). In this case, the extremely negative impact of the military conflict in the east of the country (from which Luhansk and Donetsk oblasts suffered the most) on the labor market is quite clear.

In order to study in more detail the regional features of the labor market, we consider it appropriate to divide the regions of Ukraine into categories (zones) based on the results of the rating assessment. Researchers I.O. Tsymbalyuk and O.V. Uniga propose to determine the optimal number of groups at approximately equal intervals using the formula of the American scientist Sturgess:

$$m = 1 + 3,332 \, lgn \qquad (2)$$

where m is the number of intervals; n is the volume of the population.

The width of the interval h is determined by the formula:

$$h = (x\text{max} - x\text{min}) / m \qquad (3)$$

where xmax, xmin - the largest and smallest values of the feature in the aggregate [23]

In determining the number of groups, the basic requirements for their formation were met, in particular, the need for qualitative homogeneity of certain groups and a relatively large number of units in each group. Thus, 6 groups were obtained (m = 1 + 3.332 lg 25 = 5.65 = 6), the value of the interval was calculated (h = (2.159-0.177) / 6 = 0.33), and the categories (zones) to which the regions belong were defined according to their level of social security in the labor market:

- The first group with values of rating coefficients from 0.177 to 0.507 (category No. 1: regions with the highest level of social security in the labor market; the zone of the lowest level of threats);
- The second group with values of rating coefficients from 0.507 to 0.838 (category No. 2: regions with a high level of social security in the labor market; low-risk zone);
- The third group with values of rating coefficients from 0.838 to 1.168 (category No. 3: regions with an average level of social security in the labor market; zone of medium level of threats);
- The fourth group with values of rating coefficients from 1.168 to 1.499 (category No. 4: regions with a level of social security in the labor market below average; threat zone with a level above average);
- The fifth group with values of rating coefficients from 1.499 to 1.829 (category No. 5: regions with a low level of social security in the labor market, a zone of high level of threats);
- The sixth group with values of rating coefficients from 1.829 to 2.159 (category No. 6: regions with the lowest level of social security in the labor market, the zone of the highest level of threats).

According to the proposed distribution, in 2018, the category No. 1, which includes regions with the highest level of social security in the labor market, belongs only to Kyiv, in particular due to a significant gap with other regions in almost all studied indicators. Category No. 2 includes industrialized regions with a high level of social security in the labor market and low levels of threats - Dnipropetrovsk and Kharkiv regions (respectively 2nd and 3rd place in the ranking). The category of regions with an average level of labor market development and ensuring its social security (category No. 3) includes Kyiv, Odesa, Lviv, and Ivano-Frankivsk regions (respectively 4, 5, 6, and 7 place in the ranking). Category No. 4, which includes regions with a level of social security that is below average, has 14 oblasts (Khmelnytsky, Zaporizhia, Sumy, Chernivtsi, Mykolaiv, Vinnytsia, Cherkasy, Rivne, Zakarpattia, Zhytomyr, Poltava, Kherson, Chernihiv, Chernihiv, Ternopil), i.e., most of the regions of Ukraine. Volyn, Kirovohrad, and Donetsk oblasts have a low level of social security in the labor market and category No.5 respectively, with low values of the main indicators of employment security and wage security (respectively 22, 23, and 24 place in the ranking). Category No. 6, which reflects the regions with the lowest level of social security in the labor market and the highest level of threats, includes Luhansk region (25th place in the ranking).

In order to conduct a comparative analysis of the results of the rating assessment of the Ukraine' regions by the level of social security in the labor market, the statistics of 2018 and statistics of 2013 were selected, characterized by relative stability of the economic situation period of 2014. The corresponding values of stimulant indicators and disincentive indicators with the characteristics of their standards are given in Tables 3 and 4.

Table 3: Summary data on employment security indicators in 2013

Regions	Occupation rate, %	Average number of employees, thousand people	Unemployment rate, %
Ukraine	*60.3*	*10164*	*7.2*
Vinnytsia	59.6	300	8.4
Volyn	59.7	181	7.8
Dnipropetrovsk	62.1	904	6.5
Donetsk	60.3	1097	7.8
Zhytomyr	59.9	238	9.3
Transcarpathian	58.6	183	7.8
Zaporizhya	61.3	423	6.6
Ivano-Frankivsk	55.4	213	7.2
Kyiv	59.5	369	6.1
Kyrovograd	59.5	197	7.9
Luhansk	59.4	503	6.2
Lviv	58.8	516	7.1
Mykolayiv	60.6	229	7.4
Odessa	59.6	489	5.3
Poltava	59.4	365	8.2
Rivne	59.6	200	9.4
Sumy	60.1	241	7.7
Ternopil	56.2	172	9.4
Kharkiv	61.5	625	6.4
Kherson	59.6	185	8.5
Khmelnytsky	59.7	232	8.0
Cherkasy	59.9	247	8.9
Chernivtsi	58.7	130	7.4
Chernihiv	60.6	213	9.3
City of Kyiv	64.9*	1267*	5.2*

* reference values of indicators

Source*: Economic Activity of the Population of Ukraine, 2014; Labor of Ukraine, 2014*

According to statistical information in 2013, the leadership in all identified indicators of employment security, namely the employment rate, unemployment rate, and average number of employees, belongs to the city of Kyiv.

Regarding labor security indicators in 2013, the reference values belong to the following regions: according to the real wage index - Rivne region (111.5%), according to the average monthly wage - Kyiv (UAH 5007), according to the ratio of average monthly wages and subsistence level per able-bodied person - Kyiv (4.2 times).

Table 4: Summary data on wage security indicators in 2013

Regions	Real wage index, %	Average monthly salary, UAH	The ratio of average monthly wages and subsistence level per 1 able-bodied person, times
Ukraine	*108.2*	*3265*	*2.8*
Vinnytsia	110.0	2651	2.2
Volyn	111.0	2580	2.2
Dnipropetrovsk	106.7	3336	2.8
Donetsk	106.3	3755	3.2
Zhytomyr	109.6	2561	2.2
Transcarpathian	109.4	2553	2.2
Zaporizhya	108.1	3142	2.7
Ivano-Frankivsk	106.6	2679	2.3
Kyiv	107.2	3351	2.8
Kyrovograd	109.0	2608	2.2
Luhansk	107.6	3337	2.8
Lviv	109.2	2789	2.4
Mykolayiv	109.8	3094	2.6
Odessa	109.3	2947	2.3
Poltava	106.1	2988	2.5
Rivne	111.5*	2844	2.4
Sumy	109.5	2702	2.3
Ternopil	109.3	2359	2.0
Kharkiv	109.3	2975	2.5
Kherson	109.4	2464	2.1
Khmelnytsky	109.6	2641	2.2
Cherkasy	107.9	2682	2.3
Chernivtsi	108.0	2484	2.1
Chernihiv	110.0	2504	2.1
City of Kyiv	107.8	5007*	4.2*

* reference values of indicators

Source*: Labor of Ukraine, 2019*

The results of the rating assessment of the level of social security in the labor market for 2013 are shown in Figure 2.
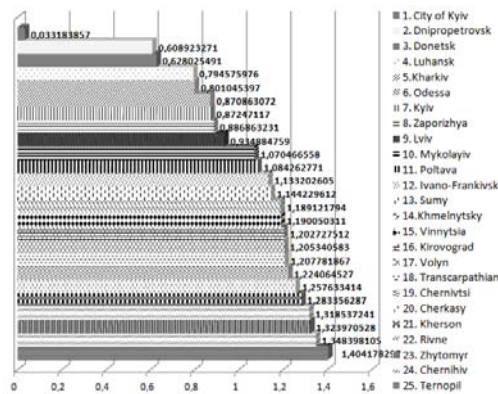

Figure 2. Results of the rating assessment of the level of social security in the labor market of Ukraine in 2013

Source: author's development

The leader in the level of social security in the labor market in 2013, as in 2018, was the city of Kyiv with correspondingly high values for most indicators of both employment security and wage security. The second position in the ranking of 2013, as in 2018, was occupied by Dnipropetrovsk region. Respectively, the third and fourth places belong to Donetsk and Luhansk oblasts, which in 2013 had a favorable situation for the development of the labor market and ensuring its social security, which was expressed in high average monthly wages, as well as the ratio of average monthly wages and subsistence level per able-bodied person. The presence of great industrial potential contributed to the creation of new and development of existing production facilities, which provided the creation of additional jobs. Unfortunately, all this has been lost due to the military conflict, and the regions are currently in crisis.

Regarding the last positions in the ranking, in 2013 they belonged to Ternopil, Chernihiv, and Zhytomyr regions (25th, 24th, and 23rd place respectively). Thus, Ternopil region showed the lowest among all regions average monthly wage and its ratio to the subsistence level, the lowest value of the average number of employees and the highest unemployment rate in the country. The employment rate was also below the Ukrainian average. The situation in Chernihiv and Zhytomyr oblasts does not differ significantly with low average monthly wages and its ratio to the subsistence level, high unemployment and low average number of employees.

According to the results of the rating assessment of the level of social security in the labor market, all regions of Ukraine were also divided into 6 categories (zones), with an interval of 0.23 (h = (1,.404 - 0.033) / 6 = 0.23):

- Category No. 1 with values of rating coefficients from 0.033 to 0.262 (regions with the highest level of social security in the labor market; the zone of the lowest level of threats);
- Category No. 2 with values of rating coefficients from 0.262 to 0.490 (regions with a high level of social security in the labor market; low-risk zone);
- Category No. 3 with values of rating coefficients from 0.490 to 0.719 (regions with an average level of social

security in the labor market; zone of medium level of threats);

- Category No. 4 with values of rating coefficients from 0.719 to 0.947 (regions with a level of social security in the labor market below average; threat zone with a level above average);
- Category No. 5 with values of rating coefficients from 0.947 to 1.176 (regions with a low level of social security in the labor market, a zone of high level of threats);
- Category No. 6 with values of rating coefficients from 1.176 to 1.404 (regions with the lowest level of social security in the labor market, the zone of the highest level of threats).

According to the rating and the results obtained, the city of Kyiv belonged to category No. 1 in 2013, which, similarly to 2018, has the highest level of social security in the labor market with the highest values of indicators among all surveyed regions. Unfortunately, in 2013, no region was included in category No. 2, which indicates the absence of regions with a high level of labor market development and the appropriate level of social security in it. Among the regions with the average level of the studied indicators (category No. 3), there were Dnipropetrovsk and Donetsk regions, which in 2013 occupied the second and third place of the overall rating, respectively. Regions with a below-average level of social security in the labor market (category No. 4) included Luhansk, Kharkiv, Kyiv, Zaporizhia, Odesa, and Lviv regions. Regarding the regions with a low level of the studied phenomenon, they include Mykolaiv, Poltava, Ivano-Frankivsk, and Sumy regions (category No. 5). The regions with the lowest level of social security in the labor market (category No.6) included 12 regions of Ukraine: Khmelnytsky, Vinnytsia, Kirovohrad, Volyn, Zakarpattia, Chernivtsi, Cherkasy, Kherson, Rivne, Zhytomyr, Chernihiv, Ternopil regions.

Changes in the ratings and corresponding positions of the regions that took place in 2018 compared to 2013 are shown in Table 5.

Table 5: The results of a comprehensive rating assessment of the level of social security in the labor market of Ukraine

Categories of regions by level of social security in the labor market	2013	2018
Category No. 1: regions with the highest level of social security in the labor market; the zone of the lowest level of threats	City of Kyiv (1)*	City of Kyiv (1)*
Category No. 2: regions with a high level of social security in the labor market; low threat zone	-	Dnipropetrovsk (2), Kharkiv (3)
Category No. 3: regions with an average level of social security in the labor market; zone of medium level of threats	Dnepropetrovsk (2), Donetsk (3)	Odessa (5), Kyiv (4), Lviv (6), Ivano-Frankivsk (7)
Category No. 4: regions with a lower level of social security in the labor market; threat zone with a level above average	Luhansk (4), Kharkiv (5), Odessa (6), Kyiv (7), Zaporizhia (8), Lviv (9)	Zaporizhia (9), Mykolaiv (12), Poltava (18), Sumy (10), Khmelnytsky (8), Vinnytsia (13), Zakarpattia (16), Chernivtsi (11), Cherkasy (14), Kherson (19), Rivne (15), Zhytomyr (17), Chernihiv (20), Ternopil (21)
Category No. 5: regions with a low level of social security in the labor market, a zone of high threat	Mykolaiv (10), Poltava (11), Ivano-Frankivsk (12), Sumy (13)	Donetsk (24), Kirovohrad (23), Volyn (22)
Category No. 6: regions with the lowest level of social security in the labor market, the zone of the highest level of threats	Khmelnytsky	Luhansk (25), (14), Vinnytsia (15), Kirovohrad (16), Volyn (17), Zakarpattia (18), Chernivtsi (19), Cherkasy (20), Kherson (21), Rivne (22), Zhytomyr (23), Chernihiv (24), Ternopil (25)

* the position of the region in the rating is indicated in parentheses
Source: author's development

As a result, the leading position of the city of Kyiv remained unchanged in terms of most indicators of labor market development, belonging to the first category. Significant deterioration of the situation in the field of social security in the labor market can be observed in Donetsk and Luhansk oblasts, which changed their position in the ranking by two positions and moved to the categories with the lower and lowest levels of the studied indicators. The positions of Dnipropetrovsk, Kharkiv, Odesa, Kyiv, and Lviv oblasts have slightly improved, and in 2018 they moved to the category of regions with a high level of social security in the labor market. The transition to a higher category was observed in almost all regions of Ukraine, except Zaporizhia oblast and regions of military conflict. At the same time, it should be noted that the results of this comparison do not indicate an overall improvement in the labor market in 2018 due to unresolved issues of employment and wages, economic and political instability, hostilities in the east. The level of economic activity and employment of the population during the study period (2006-2018) reached its maximum value in 2013 (65% and 58.9%, respectively, in 2013, 62.6% and 57.1%, respectively, in 2018). Despite the improvement of the positions of some regions, there is an urgent need to restore the vital functions and potential of Donetsk and Luhansk regions, which in the future will have significant opportunities to create new jobs and improve employment.

Thus, the state of social security in the labor market of Ukraine in terms of regions is not satisfactory. The main problems that need to be addressed as a matter of priority are, first of all, ensuring decent wages by aligning nominal wages with their real indicators, as well as reducing unemployment, which will be possible not only by creating additional jobs in the regions, raising economic activity, the use of innovative forms of employment, but also by eliminating structural imbalances in the labor market.

Given the number of crisis phenomena in the labor market of Ukraine, as well as the European vector of modern integration processes, it is advisable to conduct a rating assessment of key indicators of employment and wage security in the European Union. In order to obtain comparative results, the labor market of 28 EU countries and Ukraine was chosen as an object of evaluation. Taking into account the peculiarities of statistical reporting in EU countries and the principle of determining key indicators for analyzing the state of social security in the labor market, 3 indicators were selected: employment (% of the population aged 15 and older for the EU, aged 15-70 for Ukraine); unemployment rate (in % to the economically active population aged 15-74 for the EU, aged 15-70 for Ukraine); the amount of the average monthly net salary (employee's remuneration received on the day of payment, euros), i.e., the amount of salary minus mandatory tax deductions, which reflects the actual earnings of the employee. Thus, the level of employment is a stimulus indicator in the field of employment security; the unemployment rate is an indicator-disincentive in the field of employment security; the average monthly net salary is a stimulus indicator in the field of wage security.

Statistical data and their reference values, selected for a comprehensive rating assessment of the level of social security in the labor market of Ukraine and the EU in 2018, are shown in Table 6.

The highest level of employment among the surveyed countries in 2018, which was selected as a reference value, was observed in Sweden (61.9%). The Netherlands (61.8%), the United Kingdom (60.6%), and Estonia (60.4%) also have close high values of the analyzed indicator (more than 60%). Critically low employment rates (less than 50%) were observed in the labor market of Greece (41.9%), Italy (44.6%), Croatia (46.9%), and Spain (49.1%). The reference value of the unemployment rate in 2018 belongs to the Czech Republic (2.2%).

Table 6: Summary data on employment and wage security indicators in Ukraine and the EU in 2018

Regions	Occupation rate, %	Average number of employees, thousand people	Unemployment rate, %
Ukraine	*57.1*	*8.8*	*212.80*
Austria	58.4	4.9	1535.68
Belgium	51.0	6.0	1618.83
Bulgaria	52.4	5.2	233.81
Greece	41.9	19.3	739.25
Denmark	59.4	5,0	1642.03
Estonia	60.4	5.4	616.08
Ireland	58.6	5.8	1736.45
Spain	49.1	15.3	1031.39
Italy	44.6	10.6	1084.78
Cyprus	57.2	8.4	893.88
Latvia	56.9	7.4	388.83
Lithuania	57.8	6.2	405.63
Luxembourg	56.5	5.4	2084.70*
Malta	57.3	3.7	842.84
Netherlands	61.8	3.8	1813.46
Germany	59.2	3.4	1455.07
Poland	54.2	3.9	407.11
Portugal	55.0	7.0	683.41
Romania	52.7	4.2	288.21
Slovakia	55.9	6.5	424.24
Slovenia	55.8	5.1	620.48
The United Kingdom	60.6	4.0	1584.07
Hungary	54.6	3.7	357.79
Finland	55.1	7.4	1522.08
France	50.7	9.1	1276.01
Croatia	46.9	8.5	440.11
Czech Republic	59.2	2.2*	510.90
Sweden	61.9*	6.3	1448.27

* reference values of indicators
Source*: Economic Activity of the Population of Ukraine, 2019; Annual net earnings. Eurostat, 2018*

Low unemployment was observed in the labor market of Germany (3.4%), Malta (3.7%), Hungary (3.7%), the Netherlands (3.8%), and Poland (3.9%). The countries of Eastern Europe, which are on the list of countries with the lowest unemployment rates, have partially managed to overcome the crisis in the labor market, which was particularly acute at the beginning of their membership in the EU. Critically high unemployment rates in 2018 were observed in Greece (19.3%), Spain (15.3%), and Italy (10.6%), which requires urgent action by governments to address the problem and prevent a deepening crisis.

The largest (reference) average monthly net salary was paid to employees in Luxembourg (€ 2084.70). High net wages were also found in the labor market of highly developed European countries such as the Netherlands, Ireland, Denmark, the United Kingdom, Germany, Sweden, Belgium, Finland, and Austria, which creates favorable conditions for wage security in these countries. Ukraine has the lowest level of wages among the surveyed countries (212.80 euros). Bulgaria, Romania, Hungary, Latvia, Slovakia, Croatia, Poland, and Lithuania are also characterized by low average monthly net wages. A common feature of the labor market of these countries is the presence of unresolved issues in the field of wage security, which is reflected in the lowest level of wages in the EU. This, in turn, leads to

significant migratory movements to more developed European countries in search of decent-paying jobs.

All the above trends are reflected in the results of the rating assessment of the level of social security in the labor market of Ukraine and the European Union (Fig. 3).

According to the results of the rating assessment, the leading positions in 2018 were shown by Germany by a significant margin, which was due to high values of employment (59.2%) and the average monthly net salary (1455.07 euros), as well as low unemployment (3.4%). The Netherlands and the Czech Republic were also among the top three. The Dutch labor market was characterized by positive values of all studied indicators of both employment and wage security. At the same time, the Czech labor market had a low average monthly net wage (€ 510.90) compared to highly developed EU countries, which is offset by the lowest EU (reference) unemployment rate (2.2%) and a fairly high level of employment (59.2%).

Among the outsiders of the ranking, there were Greece, Spain, and Italy (29th, 28th, 27th place respectively). The main problem areas of these countries included high unemployment and low employment.

Ukraine ranked 25th, with a higher employment rate than the European average (57.1% in Ukraine; 54.1% in the EU), and the highest average European unemployment rate (8.8% in Ukraine; 6.8% in the EU), as well as the lowest average monthly net wage (€ 212.80) among the countries studied. All this indicates the presence of problematic phenomena in the labor market of Ukraine both in the field of employment security and in the field of labor security.

For the rating grouping of countries, 6 groups were obtained according to the Sturgess formula (m = 1 + 3.332 lg 29 = 5.87 = 6), and the value of the interval (h = (7.806-0.625) / 6 = 1,20) was calculated. According to certain groups of countries, the relevant categories and zones of social security in the labor market were identified:

▪ Category No. 1 takes into account the values of rating coefficients from 0.625 to 1.822 (countries with the highest level of social security in the labor market, which are in the zone of the lowest level of threats);
▪ Category No. 2 with values of rating coefficients from 1.822 to 3.019 (countries with a high level of social security in the labor market, which are included in the zone of low level of threats);
▪ Category No. 3 with values of rating coefficients from 3.019 to 4.216 (countries with an average level of social security in the labor market, which are in the zone of medium level of threats);
▪ Category No. 4 with values of rating coefficients from 4.216 to 5.412 (countries with a level of social security in the labor market below the average, which are in the threat zone with a level above the average);
▪ Category No. 5 with values of rating coefficients from 5.412 to 6.609 (countries with a low level of social security in the labor market, which are included in the zone of high level of threats);
▪ Category No. 6 with values of rating coefficients from 6.609 to 7.806 (countries with the lowest level of social security in the labor market, which are in the zone of the highest level of threats).
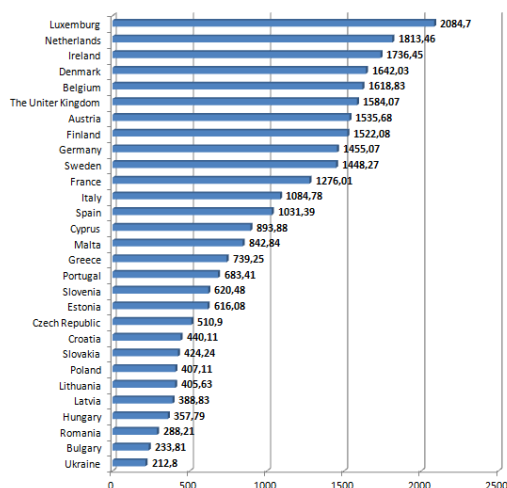
Figure 3. Results of the rating assessment of the level of social security in the labor market of Ukraine and the EU for 2018

Source*:* author's development

Thus, the group of countries with the highest level of social security in the labor market and the lowest threat zone includes a fairly wide list of countries: Germany, Netherlands, Czech Republic, United Kingdom, Malta, Hungary, Poland, Austria, Romania, Denmark, Luxembourg, Slovenia, Estonia, Bulgaria, Ireland, Belgium. As we can see, the category No. 1 includes not only the highly developed countries of Western Europe, which traditionally occupy high positions in world rankings, but also the countries of the former socialist camp. This is due to low unemployment rates in most Eastern European countries. At the same time, the need to increase the average monthly net salary (the amount taking into account the tax burden that workers receive) remains a pressing problem in the labor market of Romania, the Czech Republic, Hungary, Poland, Bulgaria, Slovenia, and Estonia.

Category No. 2 includes countries with a high level of social security in the labor market and a low level of threats, in particular: Sweden, Lithuania, Slovakia, Portugal, Finland, Latvia, Cyprus, Croatia.

In category No. 3, which reflects the average level of the studied phenomenon, there are Ukraine, France, and Italy. It should be noted that there are crises in the field of employment security in France and Italy: critical unemployment (respectively 9.1% and 10.6%) and low employment (50.7% and 44.6%), which is somewhat neutralized in the high rating indicator of the average monthly net salary (respectively 1276.01 euros and 1084.78 euros). Ukraine's labor market indicators, by contrast, show a critical state of wage security, with the lowest average monthly net wage of all countries surveyed (€ 212.80), while the employment security situation is slightly better, as evidenced by employment indicators and unemployment.

In 2018, according to the rating assessment, no country was included in the category No. 4 (group of countries with the level of social security in the labor market below average). While Spain showed a low level of research and entered the category No. 5, the Spanish labor market is characterized by significant problems in the field of employment security, including extremely high unemployment (15.3%) and low employment (49.1%).

Among the countries with the lowest level of social security in the labor market, there was Greece, which was included in the No. 6 category – it witnessed significant problems in both employment and wage security. In particular, there is a minimum employment rate among the surveyed countries (41.9%) and a maximum unemployment rate (19.3%) in this country. Adverse trends are exacerbated by the low average monthly net wage (€739.25).

4 Conclusion

The method of comprehensive rating assessment of the level of social security in the labor market is versatile and flexible, which allows for variation of indicators depending on the target of the assessment process, as well as the ability to identify threats and dangers in the labor market that affect social security. The results of the evaluation can be used to identify problematic aspects and threats that hinder the development of the labor market, as well as to further substantiate the strategic directions of social security in the labor market. These indicators can be used in the process of periodic monitoring of social security in the labor market, subject to the principles of representativeness, reliability, and information accessibility.

A comprehensive rating assessment of the level of social security in the EU labor market has shown the feasibility of applying the best practices of developed European countries in creating favorable conditions for employment and wage security in Ukraine. In particular, the introduction of key elements of the labor market development models of Germany and the Netherlands may be useful for Ukraine. In order to improve the situation in the field of employment and wages in Ukraine, as well as to neutralize the identified regional imbalances, it is necessary to form an effective state policy in the labor market, which will include such areas of development as: labor market and educational services; raising the level of youth employment, in particular by supporting enterprises that employ young people; development of self-employment and innovative forms of employment; reduction of the share of employment in the informal sector; increase real wages and ensure a high level of welfare. It is important to take into account the main components of social security in the labor market:

- employment security (through active employment policy; balancing the demand for and supply of labor; state support for entrepreneurship, in particular, through the use of tax instruments; stimulating youth employment through cooperation between the state, educational institutions, and business structures, etc.);
- wage security (improvement of the wage system taking into account the principle of fairness and the need to restore the basic functions of wages in a market economy; regulation of inflationary fluctuations; improving the legal framework on wages given the need to approximate it to European standards, etc.).

That is why a comprehensive state policy, which will take into account not only direct but also indirect factors of influence, will provide an opportunity to improve employment and living standards of Ukrainian citizens, which will indicate the formation of social security in the context of labor market development.

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CORE COMPETENCIES OF CONTEMPORARY UNIVERSITY TUTOR IN UKRAINE, USA AND EU COUNTRIES WITHIN DIGITAL EDUCATIONAL REALM

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Abstract: The article has analyzed the problems of teaching and learning at a higher educational institution, reveals the specifics of the teacher's professional activities, the components of his or her teaching skills and deals with the issue on the necessary competencies of the teacher with regard to providing a favorable and successful learning environment for diverse students. The emphasis has been made on the specifics of teaching, research, and professional development of the teaching staff. Also, the importance of creating the appropriate conditions for the full realization of the creative potential of teachers, ensuring their professional development, has also been emphasized. In particular, during the research, we have come up with the outcomes that the main provisions is an active involvement of everyone in the activity, interpersonal communication, stimulation of activity, support of the initiative. The comfortable environment is provided when there is the lack of coercion, pressure, and bias, but the presence of a positive setting, providing opportunities for free consideration, expressing own opinions, self-affirmation, respect for the person, recognition of the value of everyone, their views, achievements, and the absence of criticism, abuses, convictions. In frames of our research, the main competencies needed for university tutors working in modern conditions of university education with digital tool application were defined. The results of the pedagogical survey concluded that it is very important for the Ukrainian higher educational institutions to take on the best practices of the EU countries regarding the successful organization of the system of work with the teaching staff. The high level of democracy, supporting of a wide range of academic freedoms, and favorable working conditions enable university tutors to fully realize their creative potential, identify initiative and achieve the high level of academic and scientific activities. Moreover, the successful experience of the American centers of pedagogical skill has been described in order to borrow it by the higher education system of Ukraine to ensure the development of the professional and creative potential of the teaching staff of universities.

Keywords: Digital education, EU countries, Professional competencies, Modern university tutor, Professional development, Professional profile components, International vocational upgrading.

1 Introduction

The priority task of education in the 21st century involves focusing on the interests of the individual, which would correspond to the modern trends of social development, creation of prerequisites for the enhancement of people's creative abilities, formation of the ability to adapt to changes occurring in society [5; 9; 10]. Such tasks require the transformation of stereotypes regarding the formation of professional competences, changes in value orientations, and the emergence of new abilities of educators. But no matter what reforms take place in the education system, usually in the end they come down to a specific performer – the teacher.

Competence is understood as a range of issues in which a person manifests appropriate understanding not only during the study of the subject, but also in frames of non-formal education, as a result of the influence of the environment. The main documents on education refer to the training of a new generation teacher within the framework of the competence approach [28; 30].

In particular, in the new law of Ukraine "On Education", competence is declared as a dynamic combination of knowledge, abilities, skills, ways of thinking, views, values, and other personal qualities, which determines a person's ability to successfully socialize, conduct professional and/or further educational activities.

Professional competence is a basic characteristic of a specialist's activity; it includes both substantive (knowledge) and procedural (skills) components and has essential features, namely mobility of knowledge, flexibility of methods of professional activity and critical thinking. Based on this, the following below-mentioned understanding of professional and pedagogical competence is proposed.

The professional and pedagogical competence of a teacher is a complex, multi-level stable structure of his mental traits, which are formed as a result of the integration of experience, theoretical knowledge, practical skills, strong personal qualities and define essential features: mobility, flexibility, and creativity of thinking [7; 35; 39].

The competence approach in education arose as a special direction in the late 1960s – early 1970s. In 1965, the American linguist N. Chomsky introduced the term "competence" into the conceptual apparatus of linguistics in the context of the problems of generative grammar [14; 19; 22].

Pedagogical competence is the unity of a teacher's theoretical and practical readiness to carry out pedagogical activities. Many scientists were interested in the problem of pedagogical competence. A competent teacher is seen as a specialist who has thorough knowledge of any subject of the school curriculum; his pedagogical activity is considered as a creative process [8; 20].

The purpose of the article is to study core competencies required for modern university tutors in Ukraine and EU countries (as well as the USA), on the governmental and legal levels, which are aimed at formation of individual professional readiness for effective cross-cultural interaction. In particular, the main tasks of the ongoing study are to highlight top priority professional university tutor profile components sufficient for successful teaching activity in the digital space [15; 18; 22].

2 Method

In the initial factual material description, it is worth mentioning the set of theoretical methods applied in current research. We actively used the "concretization method", that meant the mental research process involved giving the subject concrete expression. During concretization, pedagogical concepts are enriched with new features, since this method is aimed at highlighting the development of the subject as a whole system. To be more precise, the description of digital tools was followed with a set of practical online tasks for students to be performed.

The "generalization method" was used as well. By its essence, it is a logical operation, as a result of which there is a transition from a singular to a general, from a less general to a more general judgment, knowledge, assessment; in particular, we studied various modern approaches and digital tools, after which we presented the most effective ones.

The "abstraction method" was applied as well, which is resorted to if it is necessary to single out the subject of research from the set of signs and properties of the phenomenon. That is, abstraction is a process of mental distraction of the researcher from any signs, qualities of the pedagogical phenomenon, from the phenomenon itself in order to study it more deeply. Abstraction method helped us to single out the main advantages and disadvantages of distance education and digital instruments.

"Competence" in translation from Latin means a range of issues in which a person is well-versed, has knowledge and experience [3; 7]. The question arises: What qualities are necessary for a person in any professional activity? Some authors cite the opinion of J. Raven, the author of the book "Competence in Modern Society", who, based on his research, answers this question as follows [10; 13; 22]:

- The ability to work independently without constant guidance;
- The ability to take responsibility on own initiative;
- The ability to take the initiative without asking others whether it should be done;
- Willingness to notice problems and look for ways to solve them;
- The ability to analyze new situations and apply existing knowledge for such analysis;
- The ability to get along with others;
- The ability to acquire any knowledge on own initiative;
- The ability to make decisions based on sound judgment.

A teacher's pedagogical competence is the unity of his theoretical and practical readiness to carry out pedagogical activities. Many scientists were interested in the problem of pedagogical competence (Figure 1).
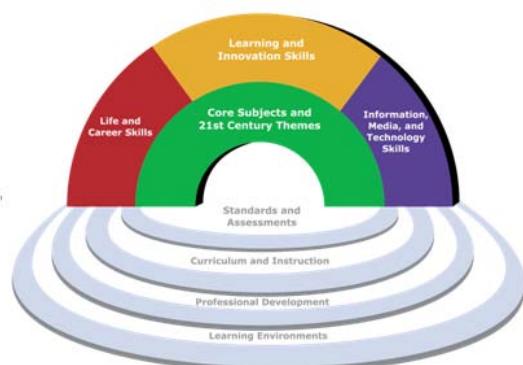

Figure 1. P21 Framework for 21ˢᵗ century learning.

Some researchers believe that a competent teacher organizes pedagogical activity so that it is aimed at obtaining a realized result [11; 15], while others consider competence as a set of knowledge, abilities, and skills that are needed for the successful performance of functions of education, upbringing, and development of a child's personality [18; 32]. Also, there is an opinion that a professionally competent person is the one who:

- Successfully solves the tasks of education and upbringing, prepares a graduate with psychological qualities desirable for society;
- Satisfied with the profession;
- Achieves the desired results in the development of students' personalities;
- Has and realizes the perspective of own professional development;
- Is open for continuous professional training;
- Enriches professional experience thanks to personal creative contribution;
- Is socially active in society;
- Devoted to the teaching profession, strives to maintain its honor and dignity, professional ethics even in difficult conditions;
- Ready for qualitative and quantitative assessment of own work, knows how to do it [23; 39; 40; 42].

In the theory and practice of a teacher's professional activity, the main components of professional and pedagogical competence are singled out: ethical attitudes of a teacher, a system of psychological and pedagogical knowledge, a system of knowledge in the field of subject, general erudition, means of mental and practical actions, professional and personal qualities [11; 25; 28].

Moreover, it is worth distinguishing between professional training of a specialist and his professional competence. The first is the process of mastering the necessary knowledge and skills, while the second is the result of this process. The professional competence of a teacher is interpreted as the integration of the appropriate level of his professional knowledge, abilities, skills,

and personal qualities that are revealed as a result of his activities [12; 17; 21].

In the opinion of Macaro et al. [22], every teacher can master pedagogical skill, provided that he works purposefully on self-improvement. It is formed on the basis of practical experience.

The analysis of world trends in the field of pedagogical education confirms the growing demands for pedagogical professionalism and personal qualities of the teacher.

According to scientists, the main problems faced by teachers in this millennium are the following [30, 46]:

- Constant complication of the content of education, guaranteeing a high level of educational standards;
- Complication of education problems;
- Continuous mastering of progressive learning and education technologies;
- Solving complex professional and pedagogical problems that require the integration of knowledge, practical abilities and skills on sciences related to pedagogy, such as philosophy, psychology, medicine, economics, cybernetics, etc.;
- Work in a unified information environment, which involves the rational use of information technologies in the educational process.

All this can be done only by a teacher with high professional competence, developed creative abilities, a high level of intelligence, erudition, and the ability for continuous education.

3 Results

The teacher is a key player in the learning process, whose mission is to provide a supportive and effective learning environment for students' successful adaptation and training in the university. The professional role of teachers was investigated by Selvi (2010), Nimi (2006), Seeberg (2012), Mansilla & Jackson (2011), Sperandio (2010), and others. The importance of the teacher's intercultural competence in a multicultural environment was considered by Stewart (2007), Sperandio (2007), Villegas & Lucas (2002). Teaching problems in diverse groups were the subject of the study of Vergheese (2010), Lyon, Bond & Scudamore (2010), Seeberg (2012), and others. Despite a large number of scientific studies on the problems of pedagogy and psychology of higher education (G. Ball, S. Vitvytska, N. Guziy, M. Yevtukh, A. Aleksiuk, A. Hluzman, S. Smirnov, P. Pidkasystyi), in which the authors analyzed the problems of teaching at a higher educational institution, revealed the specifics of the teachers' professional activities, the components of their pedagogical skills, in our opinion, in modern scientific literature the issue of the necessary competencies of the teacher to provide a favorable and successful training process in the diverse environment for all students of different cultural backgrounds is not enough examined [23; 33; 39; 41].

Knowledge of the peculiarities of preparation, formation, professional and pedagogical activity of teachers contributes to the implementation of positive experience of teaching and learning in democratic environment in Ukrainian universities [45]. Our goal is to reveal the main competencies of an advanced teacher of the university to emphasize the specifics of his educational, scientific activity and professional growth, etc. According to such Ukrainian researchers, as G. Ball, T. Koshmanova, M. Krasovytskyi, A. Sbruyeva, and others, the American model of education, which is characterized by openness, flexibility, democracy and innovation, is effective, efficient, and competitive in the context of contemporary educational challenges. The proper quality of the providing educational services in the university education system of the USA is enabled, first of all, by creating the appropriate conditions for the full realization of creative potential by the teachers, ensuring their professional development, etc. Academic freedom provides teachers with wider opportunities for developing new programs, for example, offering new courses in the curriculum, opening new laboratories or teaching and

research departments that help to create trustingly demanding relationships between students and teachers with an emphasis on their mutual responsibility for learning outcomes and adherence to pedagogical ethics [4; 16; 30; 34].

By analyzing the works of scientists, the following key components of professional competence can be determined.

1. Information competence, which involves the possession of information technologies, the ability to process various types of information. Among them, there are the skills and abilities to work with printed sources, the ability to obtain information from other sources, to process it in accordance with the goals and objectives of the pedagogical process.
2. Communicative competence is the ability to engage in communication, to be understood, to carry out communication without restrictions. These skills help to understand others (students, teachers, parents).
3. Productive competence is the ability to work, get results, make decisions and be responsible for them. The majority of scientists put productive competence in the first place among the key competencies of a teacher.
4. Autonomy for competence is the ability for self-development, creativity, self-determination, self-education, competitiveness. After all, a teacher first of all learns himself, he is an eternal student.
5. Moral competence is the willingness, ability, and need to live according to traditional moral standards [15; 19; 24; 45].
6. Psychological competence is the ability to use psychological means of learning in the organization of interaction in educational activities.
7. Subject competence, the content of which includes the possession of certain means of learning in the field of the educational process (specialty). This is a set of abilities and skills necessary to stimulate the activity of both individual students and the team as a whole. It includes the ability to choose the right style and tone in communication, manage students' attention and pace of activity [15; 19; 24].
8. Social competence is the ability to live and work with others.
9. Mathematical competence is the ability to work with numbers and numerical information.
10. Personal qualities of a teacher (this is also one of the most important components of professional competence) – benevolence, sensitivity, balance, sophistication, tolerance, reflection, humanity [15; 19; 24].

Therefore, the concepts of "competencies" are much broader than the concepts of "knowledge, abilities, skills", because they include the following important elements:

▪ Personality' orientation (motivation);
▪ The personality's ability to overcome stereotypes, sense of problem, manifestation of principles, flexibility of thinking;
▪ Character of the individual - independence, purposefulness, willpower [7; 19; 28].

It should be noted that modern scientists are able to consider the professional competence of a teacher as a set of three constituent components – subject-technological, psychological-pedagogical, and general cultural (Figure 2).

The main indicators of a teacher's pedagogical competence are, first of all:

▪ Personal qualities, especially transformative and psychological;
▪ Awareness of the teacher's role in educating a citizen, a patriot;
▪ Continuous improvement of general and professional culture;
▪ Search activity of the teacher;
▪ Mastery of pedagogical research methods;
▪ Construction of own pedagogical experience;
▪ Effectiveness of the educational process;

▪ Active pedagogical activity aimed at transforming the personality of the student and teacher [26; 30; 33].
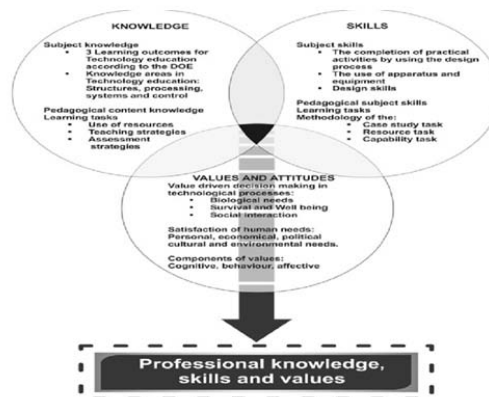

Figure 2. Components of the University Tutor Professional Profile.

Investigating the experience of EU countries regarding enhancing modern university tutors professional profile, we also have found that the experience of the American Centers for Pedagogical Excellence and Centers for teaching and learning have developed a lot of programs concentrated on improving pedagogical skills and professional development of teaching staff at universities. They are very valuable for implementation in Ukrainian higher education establishments. Among their main functions, there are: consultations of teachers, departments, administrators on problems of methodological support, organization of educational process, relations between teachers and students, between administrators and teachers, etc.; introduction of new educational technologies, technical support for the educational process; organization of courses of pedagogical skill and support of young teachers; conducting scientific and methodical conferences; development of methodical documentation to help teachers. The Centers also hold annual grants contests for support of the development of the methodological and educational process, the introduction of advanced technologies and training of teachers [39; 40].

4 Discussion

In view of the above, it can be argued that the professional competence of a teacher should be understood as the search activity, when based on the knowledge base, abilities, skills, and conscious understanding of his role in society, continuous self-improvement and self-development of the individual, providing the optimal option for organizing the educational process with the aim of forming a creative personality [1; 7; 8].

The main task of the teaching staff is to help the student to achieve success in the adaptive and academic process. The main attention, first of all, is paid to the fact that the teacher is obliged to know his or her subject well, transfer the gained knowledge, skills, and experience to others, to carry out individual and group studies for students to improve their general development, evaluate learning outcomes, manage and control the learning process, to determine the objectives of educational programs and analyze them, to do the analysis of own activities, as well as to promote and contribute to effective work of the institution [3; 11].

Qualitative educational services in the United States, primarily being provided by qualitative training of teachers, the insurance of appropriate conditions for the full realization of their creative potential in the system of university education, are characterized by openness, democracy, innovation, and constructivism (Figure 3). [3; 4; 22].
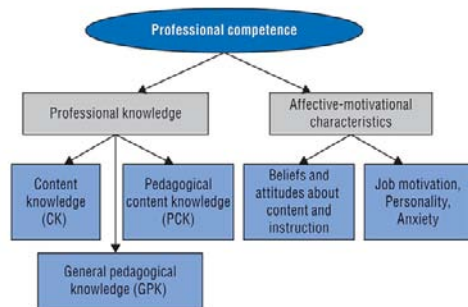
Figure 3. Professional Competences of the Modern University Tutor.

Mostly teachers (instructors) are responsible for the organizing an educational process, ensuring a productive educational environment and effective teaching, therefore, they must have a high level of professional competence. Competence is defined as a set of knowledge, skills, and experience needed by a person to be successful in a career [9; 17].

The general understanding of the teacher's competences covers three areas: competence in a particular field, pedagogical competencies, and multicultural competencies. Among them, as the main components of the teacher's competence, the following ones are named: scientific field competence, competence in the research work, competence in the development and implementation of training programs, competence in lifelong learning, multicultural competence, socio-cultural competence, emotional competence, communicative competence, competence in information and communication technologies, managerial competence, and ecological competence [17; 26].

Some competencies are very important for a modern teacher, such as: competence in a certain area of knowledge, competence in research, preparation and implementation of programs, life-long learning, socio-cultural and multicultural competencies, emotional, communicative, information and communication technologies (ICT) competence, managerial and ecological competences (Figure 4). These competences influence on values, behavior, communication, goals and practices, academic process, and professional development support [34; 41].
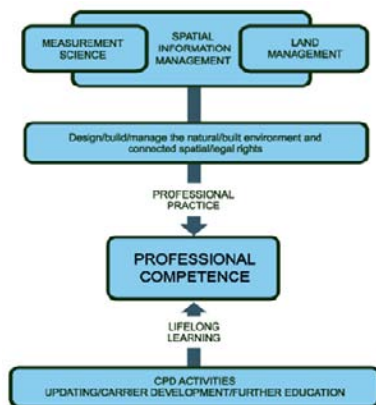

Figure 4. Professional Competence Model.

The scientific field competence is the teacher's main competence, which covers academic knowledge in a particular field of science and ensures the performance of professional duties [11]. The competence in the development and implementation of training programs covers program development and implementation, taking into account its contents, approaches to development, planning of the teaching process and monitoring with evaluation, etc. [23; 28].

Therefore, the main ability of a teacher (an instructor) is to interest students in the subject, motivate them to study hard,

create a favorable environment in the classroom, apply active teaching methods, differentiated learning, communicative approach to learning, taking into account the individual characteristics of each student, to operate with relevant material useful in life and future career, use modern technology during the training sessions. As for the personality characteristics of the teacher, students value most of all openness, kindness, understanding, readiness to help in learning, sense of humor, tolerance, patience, respect, enthusiasm, and multiculturalism [5; 23; 34].

It should be noted that the United States has a great experience in training teachers, which indicates that among all other competencies required for the profession, multicultural competence is one of the most important. This competence requires teachers (instructors, advisors) to be gained in practice, but not traditionally (in classrooms or based on information sources about different cultures of the world). It is important for avoiding prejudices about one or another culture, its customs and values. In this case, computer technologies are usually helpful for conducting international online conferences, video lessons on a common theme (historical or cultural) to get to know the point of view of representatives of different cultural and ethnic groups [13; 17; 24].

The American Council on Education has determined that teachers must have the necessary professional knowledge, multicultural competence, and the ability to open students the global world. According to it, these qualities form judgment while communicating with people of different cultures alive or remotely through IT technology, and not only cognitively from information sources [39; 40; 44].

Universities of the United States have professional development schools, where teachers test different training strategies, techniques, and materials in multicultural student groups under the guidance of university advisors and instructors. The teacher has to be both a formal leader and a leader of a group.

As a rule, the teacher's business leadership is easy to achieve, but it is much more difficult to show emotional leadership depending on how proficient is the teacher in the influencing the group emotionally in order to establish an individual emotional contact with students. Therefore, the appearance of teachers, their behavior and willingness to give modern and actual knowledge to students is very important too.

5 Conclusion

Transformations that occur in almost all spheres of Ukrainian society' life, put forward new requirements for activity of the institutions of higher education, require educators to find new methods and technologies for training competitive specialists, capable of responding appropriately to challenges. Today, implementation of the distance learning system in institutions of higher education made it possible to solve the problem of providing quality education services in modern conditions. The research competence involves knowledge of research methodology, development and conducting researches. It promotes "cooperation with colleagues and other professionals interested in education and training, contributes to the research and development of the teacher himself" [22]. The lifelong learning competence means the teacher's responsibility for continuing professional development (Figure 5) [13].

Figure 5. Professional Development Skills for Modern University Tutor.

To sum up, to support qualitative educational services, among the main tasks of higher education of the 21st century, there are providing of the multicultural competence of students and teachers who work in a diverse environment. Moreover, intercultural competence should be reflected in curriculum programs (knowledge about different cultures and the ability to work in a diverse environment, intercultural experience, conflict solving, based on the plurality of thoughts, which cover different cultures). Teachers are called to educate in students tolerance to different cultures. The multicultural competence outlines knowledge of the sociocultural origin of students, beliefs, values, and traditions of different cultures, democracy and human rights, collective or group work organization, cooperation in the multicultural environment and social studies. The communicative competence covers examples of communication, the interaction between the teacher, students, social environment and educational topics. It is necessary for the usage of the language symbols, gestures, and professional language.

The modern world is characterized by high technological development; therefore, for successful teaching and learning in a highly developed information society, modern university tutors need to apply technologies effectively for obtaining and analyzing the information they need, problem-solving and decision-making, communicative skills and collaboration, creativity development.

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RESEARCH OF THE MUSICAL AND INNOVATIVE SPHERE IN UKRAINE

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Abstract: The relevance of the topic is related to the need to generalization the results of research in the musical and innovative sphere in Ukraine, to reveal scientific ideas for the further development of this area of musicology. The purpose of the article is to summarize the results of research by Ukrainian musicologists on innovations in musical creativity in Ukraine from the 1980s to 2021. General scientific methods of research are applied – analysis and synthesis, description, generalization. A chronological approach was used to study the history of musicological research. The systematic approach made it possible to reveal the results of the natural introduction of innovative technologies into the art of music and outline the vectors of their development. Among the problems that are in the field of attention of Ukrainian musicologists, researchers of the musical and innovative sphere, there are the study of the history of the spread of technical means in music, the understanding of the latest practice of the performer and composer, the development of the methodology of music computer technologies, research on modern techniques of composition: algorithmic, sound synthesis and spatial sound technology, etc. Systematized research data of Ukrainian musicologists L. Dys, I. Haydenko, I. Rakunova, T. Tuchynska, K. Fadeeva, H. Yuferova. These studies focus on the innovations in musical creativity that have taken place over the past decades. A wide range of scientific investigations testifies to the versatile activity of musicologists in the study of modern art and the ways of its development. Computer technologies are an integral part of musical innovation and an important component of the practice of modern professional musicians around the world. In Ukraine, the emergence of the sphere of music innovation technologies took place in the last years of the 1960s, while in the area of special attention of musicologists this sphere came in the late 1980s. Today, the developments in this field constitute a significant body of accumulated experience. The relevance of the topic of the article is related to the need to summarize the topics and results of research in the field of music innovation in Ukraine, to identify key scientific ideas for the further development of this area of musicology.
The purpose of the article is to summarize the results of research by Ukrainian musicologists on the innovations of musical creativity in Ukraine from the 1980s to 2021. The material of the article is the scientific works of I. Haydenko, L. Dys, V. Kaminsky, A. Karnak, E. Kushch, I. Pyaskovs'kyj, I. Rakunova, T. Tuchynska, K. Fadeeva, H. Yuferova and others.

Keywords: Algorithmic composition, Heuristic processes, Musical communication, Musical computer technologies, Music innovation, Sound synthesis technologies, Ukrainian music, Ukrainian musicology.

1 Introduction

After the Second World War, musical art in the world has undergone drastic changes. They are directly related to the technical factor, which gradually penetrated into all spheres of human activity. The introduction of information technologies prompted the search for other methods of making creative decisions, influenced the time-space factors of musical creativity and the professional competencies of musicians. In the middle of the 20th century, experimental music in Ukraine became a real challenge to the musical art of the Soviet regime. Its followers and promoters were young authors, and supporters of musical experiments from the small circle of musicians of the "Kyiv avant-garde". The content of their activities was the study and assimilation of the achievements of the Western European avant-garde, the invention of new forms of artistic expression.

Thus, Vitaly Hodzyac'kyj's piece "4 Scherzi domestici" (1964–1965) based on the noises of household objects became one of the vivid examples of *musique concrète*. A little later, in close cooperation with the Ukrainian Institute of Cybernetics, Leonid Hrabovs'kyj developed his own system for creating algorithmic compositions, which was embodied in his works – in particular, "Homeomorphies 1-3" for piano (1968–1969) and Concerto misterioso for 9 instruments (1977).

The years 1964–1984 were marked by the development of production, which systematically implemented the idea of spreading domestic musical electric instruments. "During this time, Ukrainian engineers designed numerous electromusical instruments: synthesizers ("Altair", "Estradin-230", "Estradin-

3M" ("Gama"), electric organs ("Estradin" series of instruments), rhythm machines ("Pulsar", "Sound"), vocoder-preset ("Krok"), professional digital delay ("Krok Jet"), electroaccordion ("Estradin-084"), etc." [22, p. 58]. Topics of improvement of inventions and methods of new instrument development were discussed at scientific and technical conferences on electromusical instruments. Representatives of not only industrial but also musical organizations were involved in participating in such events held in Zhytomyr in 1971, 1976, and 1981.

Technological progress increasingly fascinated the art of music. The relevance of the study of innovative technologies contributed to the birth of a whole direction of the musicological research. Mykola Dyachenko, Ivan Kotlyarevs'kyj, Ihor Pyaskovs'kyj, and Leonid Dys stood near its origins. Namely, their pioneering scientific position was aimed at introducing information technologies into the system of education of composers and musicologists.

Global changes in the socio-political and economic life of Ukraine in the 1990s not only left an imprint on the further development of musical culture. They coincided in time with communication progress. On the one hand, it is connected with the invention and spread of the personal computer, and awareness of it as one of the tools of creativity and communication. On the other hand, free access to Internet resources became a factor that comprehensively contributed to the integration of Ukrainian music into the world context. Since then, musical creativity has undergone reformatting. The availability of specialized computer software programming methods for musicians and the development of new electronic devices for use in composing and performing practice shifted the emphasis on the morphology of Ukrainian culture. Modern artists widely use electronic technologies – from the development of an artistic idea for a composition, the creation and processing of sound signals, to the fixation and editing of a musical text, the preparation of sheet music for printing, the performance of works in real time, etc. This rooting of innovations in the musician's practice contributed to the activation of the process of studying the problems of music computer technologies. Over the past two decades, musicological thought has been enriched with new important achievements.

The relevance of the topic of the article is connected with the need to generalize the topics and results of research in the musical and innovative sphere in Ukraine, which has been in the area of special attention of musicologists since the end of the 1980s, to systematize the results of already existing research, to scientifically comprehend a large array of practical experimental work in the field of application of musical computer technologies, which took place and continues to develop in Ukrainian music.
The purpose of the article is to summarize the results of research by Ukrainian musicologists on the innovations of musical creativity in Ukraine in the 1980s –2020s, to highlight scientific ideas that are key ones to the further development of a separate direction of Ukrainian musicology.

2 Materials and Method

The material of the article is scientific works on the history, theory, and practice of the musical and innovative sphere. Among them, there are studies of musical computer technologies with the search for methods of musicological analysis (I. Haydenko [6], A. Karnak [8], I. Pyaskovs'kyj [14], I. Rakunova [16], T. Tuchynska [20], K. Fadeeva [5], H. Yuferova [22]); research of modern problems of Ukrainian music (L. Dys [3, 4], E. Kushch [10], E. Moreva [12], S. Shyp [17]); works devoted to the use of computer technologies in the educational environment (A. Bondarenko and V. Shulgina [2], V. Kamins'kyj [9]).

This review summarizes the authors' many years of work on this topic. It had several stages: firstly, collecting information (dissertations, printed articles, work with Internet sources and Kyiv archives, catalogs of Kyiv libraries), secondly, selection and classification of the information received, and thirdly, analysis and conclusions.

The systematic approach and deepening into the analysis of the presented musicological concepts provide an opportunity to identify the results of the introduction of innovative technologies in musical art and outline the vectors of their development. The broad cultural and historical context in which the emergence of scientific ideas is considered covers both the composer's creativity and the facts of the history of the development and implementation of electromusical instruments in Ukraine. This allows us to present the main trends in the development of musical innovation in Ukraine.

3 Results

The large-scale activity of Ukrainian scientists, engineers, and programmers during the 20th century influenced the formation of the national school of programming and ensured the powerful development of cybernetics in Ukraine and the world. At the same time, the development of the industry for the production of electromusical instruments and the establishment of communication links between professional groups, namely scientific-technical and musical, contributed significantly to the rapprochement of the technical and technological component and musical art. Against this background, the research activity of musicologists has become a reflection of progressive thought regarding the informatization of the musical sphere.

The birth of a new branch of music science in Ukraine is associated with the names of Mykola Dyachenko (1928–1993), Ivan Kotlyarevs'kyj (1941–2007), Ihor Pyaskovs'kyj (1946–2012), Leonid Dys (born 1951). On their initiative, the introduction of innovative technologies into educational programs for students of the historical-theoretical and compositional faculties took place.

At the end of the 1970s, in the dissertation "The role of the study of the acoustic factor in the system of analysis of a musical work", L. Dys substantiated the idea of a conducting acoustic horizontal, which was later embodied in computer sound synthesis. This became a kind of analog of the idea of spectral music developed at IRCAM, which is evidence of the concordance of innovative searches of Ukrainian musicians and scientists with European processes. Emphasizing the Ukrainian origin of the term "musical informatics", we note that namely the musicologist L. Dys first introduced this term, and defined musical informatics as "a specific approach within the general system of musicological knowledge" [4, p. 40]. The author considered the objects of study of music informatics to be the means of computer technology, the processes of musical and artistic activity and its results, which are considered from the point of view of musical information. The strategy for the development of music informatics defined by L. Dys, which he saw as a way from the algorithmic representation of the general problems of musical thinking with its gradual detailing and projection onto specific types of musical activity, has not lost its relevance either [22].

Experimental work on the introduction of interdisciplinary connections into the educational process was carried out by associate professor M. Dyachenko together with a team of teachers of the Kyiv Conservatory – I. Kotliarevs'kyj, Yu. Polyans'kyj, O. Murzina, I. Ryabov, S. Tyshko, and L. Shevchenko. Together with I. Kotlyarevs'kyj, M. Dyachenko created an information and search system for a musicologist. His PhD dissertation "Technical teaching aids in the system of comprehensive education of a musicologist" (1984) [15] and methodological development "Principles of programming in an automated solfeggio training course" (1988) [15] became widely known.

The heuristic nature of research methods characterizes the musicological activity of Doctor of Art History, Professor I. Pyaskovs′kyj [3]. The researcher of his creative activity, T. Tuchynska, highlighting the natural modesty and non-public nature of her teacher, emphasizes the large volume of scientific heritage that needs to be understood and carefully studied. The monograph "Logic of musical thinking" (Kyiv, 1987), a manual on polyphony for higher musical institutions (Kyiv, 2003), articles on the phenomenon and evolution of musical thinking, problems of musical semiotics, computer analysis and synthesis of musical texts belong to the fundamental research of Pyaskovs′kyj. Thanks to Pyaskovs′kyj, since the second half of the 1990s, musicologists of the National Music Academy of Ukraine named after P. I. Tchaikovsky are studying the author's discipline "Computer analysis of musical works", which includes the methodology of probabilistic-statistical analysis of musical text, modeling of melody based on Markov chains, practical use of frame models in the analysis and modeling of musical styles.

The sphere of interests of the correspondent member of the Academy of Arts, honored worker of science and technology of Ukraine, doctor of art history, professor I. Kotlyarevs'kyj covered a wide range of scientific problems: music-theoretical, aesthetic, cultural, and scientific-methodological. On the initiative of Kotlyarevs'kyj, information and computing center was opened for the first time in Ukraine on the basis of the Kyiv Conservatory in 1987. L. Dys [15] became the scientific director of the created center. In his lectures on music informatics (1988), the scientist indicated the real possibility of using computer technologies as training equipment in the field of practical composition, and emphasized the prospects of using computer technologies in musicology, music performance, and pedagogy [3, 4].

The emergence of such a creative center contributed to the powerful development of modern composing technologies. Therefore, it is not surprising that a number of successful composers appeared over the years - A. Zahajkevych, M. Abakumov, O. Voytenko, O. Retinskyj, M. Shalygin, whose electroacoustic works are known in Ukraine and beyond.

Since the beginning of the 2000s, the educational unit "Musical computer technologies" at the Kyiv Municipal Academy of Music named after R.M. Glier, one of the leading musical educational institutions of Ukraine, became a real experimental scientific and practical platform of musical and innovative direction. The innovative work of teachers O. Voytenko, V. Lazareva, A. Roschenko, T. Tuchynska, H. Yuferova is connected with a number of experimental activities involving students. Among them, there are the study of the processes of musical communication using the example of several models of interconnection [22], the study of the processes of creating an algorithmic composition and the perception of author's and machine music [20]. The experience of such activities is summarized in scientific articles [12], educational programs of author's disciplines[1], methodical manuals and textbooks on music informatics [2].

In the course of the first twenty years of the 20th century, a solid basis for the study of individual areas of application of musical computer technologies according to global directions, which exist in their close relationship, appeared. Thus, in the Ukrainian space, these studies are represented by the works of A. Karnak (2000), I. Haydenko (2005), I. Rakunova (2008), K. Fadeeva (2009), T. Tuchynska (2009), E. Kushch (2013), H. Yuferova (2021).

In his dissertation "Tradition of experiment in American music of the 20th century", A. Karnak, investigating the evolutionary-historical and technological aspects of the creative process of such composers as J. Cage, E. Varese, M. Feldman, V.

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[1] For example, discipline programs for students of the KMAM named after R.M. Glier: "Fundamentals of musical informatics", "Computer technologies in musical art", "Synthesizer arrangement stations" (H. Yuferova), "Fundamentals of computer arrangement" (T. Tuchynska), and others.

Usachevsky, O. Luening, discovered insufficient development of clear criteria for evaluating phenomena associated with the tradition of experimentation. The researcher focuses on the fact that an important factor in the holistic analysis of experimental and innovative examples of composer creativity is the use of literature from various fields of knowledge: mathematics and computer technology, information theory and cybernetics, phenomenology, linguistics and semiotics, semantics, philosophy of music, meditative practice and Oriental studies [8]. Studying samples of experimental music created with the use of technical means, almost for the first time, Ukrainian scientists faced the question of the impossibility or ineffectiveness of musicological analysis in the traditional sense. The main problem was that each work is unique from the point of view of the dialectic of music and computer technology. Therefore, further research by scientists was directed into the field of the experimental analysis of the technology of the creative process, which is sometimes impossible without the composer's comment.

The study of the role of musical computer technologies and the peculiarities of their use in the creative process is related to the issues of I. Haydenko's dissertation "The role of musical computer technologies in modern compositional practice" [6]. The author focuses on the peculiarities of the use of information technologies in composers' creativity and considers computer technologies as a basis for a new type of creative thinking on the examples of the works of representatives of modern foreign and Ukrainian musical culture. The researcher emphasizes the structural and functional similarities between compositional techniques and music computer technologies: they are both ways of creating music by a person, and the difference lies only in their nature. While compositional techniques do not go beyond the boundaries of human activity, musical computer technologies are their reflection in human consciousness, embodied in software and hardware. Musical computer technologies first accumulated the properties of compositional techniques and then began to influence musical composition themselves.

Investigating computer technologies and new creative musical possibilities on the example of the activities of IRCAM (Paris, France), I. Haydenko singles out the main directions of development of the field of music computer technologies that are directly related to composer practice, including the research direction on sound synthesis, creating music, developing computer equipment and specialized computer programs, etc.

The development of analytical methods for the study of electroacoustic compositions remains an urgent issue for Ukrainian musicologists. Researchers repeatedly addressed this topic [2, 9, 16, 17, 20], but each time the author's idea of electroacoustic and electronic music was adjusted according to the ideas of the researcher himself. This tendency is maintained due to terminological desynchronization between different schools of musicology. The author of the term *electronic music*, V. Meyer-Eppler, used it to define compositions created using electromechanical or purely electronic sounds. In the USA, for example, under the term *electronic music*, as noted by V. Kamins'kyj, "< ...> all derivatives and directions close to it, such as concrete music, *Music for Tape* and others, have been united, without causing terminological confusion and ambiguity <...>" [9, p.35]. In our opinion, the term *electronic music* only indicates the technology and does not establish stylistic restrictions, as well as genre restrictions. Such an opinion coincides with the reasoning of such an authoritative researcher of electronic music as L. Hiller. He noted that there is no difference in approaches to the process of creating music, but there is a difference in the means that the composer chooses for this. When creating symphonic music, he must work with orchestral means; instead, for a piece of music to be electronic, its author must provide for electronic sound generation, processing with effects, etc.[2] In agreement with L. Hiller, S. Shyp (Ukraine) calls electronic music the one "the material basis

of which is electronically produced, prepared, and synthesized sounds" [17, p. 146]. Such a definition, in our opinion, should be taken into account by scientists, as it is quite clear, comprehensive and does not create other meanings.

The term *electroacoustic music* has a broader meaning than the term *electronic music*. Emerging in France in the late 1950s as a result of a combination of compositional techniques and a concrete and electronic approach to sound, electroacoustic music today is entirely related to the use of computer software. Historically, it so happened that in some European countries the term *electroacoustic music* encompasses concrete, electronic music, psychoacoustics, acousmatics. Electroacoustic music also includes computer music and its branches - interactive, algorithmic, stochastic, and experimental music [22].

The dissertation research of I. Rakunova "New compositional technologies (on the example of the work of Alla Zahajkevych)" [16] is devoted to the issue of the use of electronic technologies in the process of creating electroacoustic compositions.

The musicologist examines the history of the development of electronic technologies, the history and theory of algorithmic composition, researches sound synthesis technologies, etc. The technology of sound processing in real time is investigated by I. Rakunova using the example of A. Zahajkevych's work "Pagodas". At the same time, another work of the composer – "Air Mechanics" - became the subject of studying the features of algorithmic composition. The work is analyzed with an emphasis on its connection with the "Computer Assisted Composition" technology (compositions using a computer[3]).

Among the types of synthesis used by A. Zahajkevych in the electroacoustic work "Heroneia", wave-table synthesis and granular synthesis are distinguished. In addition, it was found that the author widely implements the effects of instrument sample processing - reverberation, various filters, skillfully using the functionality of computer programs, including Super Collider Sound Hack and others.

The basis of Rakunova's multifaceted research is an attempt to find the correct application of modern computer technologies, to determine their place in the creative process, as well as in its analysis. So, among the most important problems facing the musicologists of the world today, the researcher includes such as the development of a unified analytical terminology, the development of effective methods and tools for the analysis of electronic works, and the study of the processes of musical creativity with the help of mathematical models. Studying the electroacoustic works of Zahajkevych, Rakunova proves that the main question of musicological analysis is that each work is unique from the point of view of the dialectic of music and computer technology. Therefore, it seems possible to identify certain common features and relationships only from the standpoint of using certain technologies or computer programs. Everything else is the sphere of experimental analysis of the creative process technology.

4 Discussion

The problem of the existence of the limits of the computer' creative possibilities, which was touched on in the works of D. Oppenheim, I. Pyaskovs'kyj, the questions about the measure and ways of identifying the individual author in the compositions created with the help of a computer, raised in the works of I. Haydenko and I. Rakunova, the relationship between the personal-composer' and the machine' were continued in the research of Ukrainian musicologists in the early XXI century. Tuchynska's dissertation study "Understanding a musical text: theoretical and informational aspect" is devoted to algorithmic composition, its essence and software implementation [20]. The researcher studied the problem of formalization of the process of understanding the musical text and the frame approach to modeling the composer's style using the example of the work of

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[2] Hiller, L.A. (n.d.). *Electronic music. An Encyclopaedia Britanica Company.* https://www.britannica.com/art/electronic-music

[3] The technical solution is implemented on the basis of the PatchWork program

the Ukrainian composer V. Silvestrov. The paper considers an algorithmic composition program capable of generating musical texts in a given style using stochastic and combinatorial principles. Tuchynska conducted an experiment on the perception of music created with the help of algorithmic composition programs and by authors (both professional composers and amateurs). In this way, the researcher found out whether it is possible to detect during auditory perception the difference between the author's music and compositions that are generated using computer programs.

The experiment showed that at the time of music playback, the listener is unable to distinguish, as a result of which process, stochastic or deterministic, certain musical fragments were created with the help of algorithmic composition programs. This happens because the most important essential features of the composer's music and a significant part of its semantic component cannot be formalized, so there is an inevitable loss of part of the information. Such conclusions demonstrate the impossibility of complete algorithmization and formalization of the creative process.

Tuchynska also studied the issue of computer programming regarding the analysis and synthesis of both individual sound elements and musical compositions. The researcher concluded that to achieve the goal of programming, the creation of conditions for self-organization of the system and autonomization of actions, which model the processes of creating a musical composition without direct human participation, is assumed. This is because a person is excluded from the composition process itself, and is involved only in the initial and final stages of the process, as an initiator and an expert. "Such modeling allows revealing the objective regularities of sound organization, which also operate in the process of creating a musical composition by a human, which implies his inclusion in the communicative process of understanding" [20, p.15].

K. Fadeeva's attention was focused on heuristic processes in musical creativity with the help of computer software and the peculiarities of their manifestation, in the work "Modern computer technologies in the study of musical culture" [5]. The author reviewed the evolution of the development of innovative technologies, which preceded the emergence of the computer and the spread of electronic technologies in particular. In the context of the study of musical creativity, the areas of application of artificial intelligence methods are emphasized. For the first time in Ukraine, a review of the history of the development of music computer programs from game development to virtual sound studios was carried out. The researcher studied theoretical assumptions regarding the analysis of structure samples and individual functions of some computer programs, and classified educational music computer programs, which she proposed to divide into expert and non-expert.

The field of musical computer technologies became the object of research by Yuferova [22]. Conducting work on the study of communication processes of modern Ukrainian music is conditioned by the fact that the role of musical computer technologies in them remained uncertain for a long time. In addition, the insufficient development of the theoretical base of the musical and innovative sphere slowed down the understanding of the specifics of modern musical communication processes and somewhat restrained the development of Ukrainian musical art.

In the process of research, the author identified three stages of the history of the musical-innovative sphere, namely preparatory (1857–1945), progressive (1945–1990), and the latest (1991–present). The main factors of the formation of the field at the preparatory stage were studied and the characteristic signs of development at the progressive stage, which led to the emergence and spread of music computer technologies in Ukraine and the world, were determined. Among them, there is the establishment of electronic music studios in Europe, the USA, and Japan [7], the spread of information theory, the emergence of a method of digital data processing, the discovery

of effective algorithms for calculating Fourier transforms (Fast Furrie Transform, FFT), modernization of hardware and software against the backdrop of the microprocessor revolution and the accumulation of innovative methods in music computer software.

For the first time in musicology, theoretical provisions regarding musical computer technologies have been developed. Yuferova formulated the definition of the concept of "musical computer technologies", which is fixed in Ukrainian musicology as a system of knowledge and communicative practices connected with the use of modern personal computers as one of the tools of musical creativity and communication.

The author singles out five areas of the system of music computer technologies. Among them, there are the following: multimedia technologies, graphic technologies for musical score, sound programming technologies; digital sound technologies; virtual studio technology (VST). In determining the directions of music computer technologies, the principle of combining software tools around separate technologies that provide solutions for a related range of tasks is taken as a basis. Thus, multimedia technologies include multimedia editors for creating video content; media players for playing, storing, and organizing audio and video files; converter programs and codecs; training programs and simulators; CD/DVD burning applications. Graphic technologies for musical scores include software complexes for creating and editing musical material, voicing scores, and preparing sheet music for printing (Dorico, Finale, MuseScore, Sibelius). Sound programming technology includes graphic environments and programming languages for working with audio and video, the purpose of which is to create an algorithmic composition, synthesis and processing of sound, generation of sound objects, and processing of sound during a concert performance (Max MSP, Pure Data, etc.). Digital sound technologies include sound editors; programs for analysis and graphic presentation of sound and sound events; digital workstations and sequencers (Ableton Live, Steinberg Cubase, Logic Audio, Reaper). Virtual studio technology includes VST-tools for voicing scores and creating electronic sounds (Native Instruments Kontakt Player, Spectrasonics Omnisphere, etc.) and VST-effects that provide sound processing (iZotope Ozone, Ambisonics, FabFilter, etc.).

The realization that the theoretical basis of music computer technologies is based on scientific knowledge of music informatics and is a part of musicological knowledge made it possible to investigate the innovative link of musical art and to reveal the regular results of its functioning. The study of musical computer technologies as a systemic phenomenon, from the perspective integrated with the processes of musical communication, opened the way to understanding the globality of its influence on the modern development of Ukrainian musical art. Having manifested itself in the spiritual and creative activity of society, the system of music computer technologies has ensured real changes in the art of music thanks to: the acceleration of the process of perception and understanding of information, reaction and generation of meanings in the listening environment, renewal of means and forms of musical expression, provision of new tools for creativity and communication, as well as expanding the professional competence of musicians and integration of modern Ukrainian musical culture into the global media space [22].

For the first time among Ukrainian musicologists, Yuferova used spectromorphological analysis [18] of compositions by the auralf sonology method of Lasse Thoresen[4] [1, 19] as a component of musicological analysis for research analytical work. Such integration ensured compliance of the tested analytical method with the requirements for solving the task of learning the artistic logic of acoustic and electroacoustic works (with and without a

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[4] To solve such a task, the specialized software tool Acousmographe (Aural Sonology plugin) was used. The dynamic profiles of the works were analyzed. A spectromorphological analysis of the musical fabric of the compositions was carried out with the help of graphic markings of the corresponding abstract models of sound objects, textured layers, etc.

score). The process is demonstrated with the involvement of computer software on the example of the study of chamber works by Ukrainian composers A. Zahajkevych, O. Voytenko, and co-authors - Cherny / Tuchynska / Yuferova. Knowing the artistic logic of each work in this case made it possible to formulate the main artistic ideas of the compositions. Emphasizing the spiritual continuity of generations distant in time and space, A. Zahajkevych in the work "Mithe IV: K.S." reveals the idea of the infinity of creative burning as the infinity of creative life. The artistic idea of O. Voytenko's work "Homo fugens" consists of the composer's creation of a model of a multidimensional musical chronotope as a special, heightened sense of movement, time, and space. The artistic idea of the composition of the Cherny / Tuchynska / Yuferova group of authors "Spinning Universe" is to create an original musical spherical space, where electronic (modern) and acoustic (authentic) sounds coexist in time, provoking the listening sensation of continuous, as if in a state of trance, spinning in space of the Universe (implemented with Ambisonics).

The use of spectromorphological analysis by the aural sonology method of L. Thoresen ensured the creation of unique graphic scores. This helped to reveal certain regularities in the development of the elements of the musical fabric and to formulate intermediate and final conclusions with an emphasis on the formulation of the main artistic idea of each work.

5 Conclusion

Despite the global technology boom that unfolded in recent decades, as well as the rapid pace of integration of music and electronic technologies, Ukrainian musicology managed to avoid the formation of a vacuum regarding the study of innovative processes. In a short period, scientific work on the introduction of the latest methods into the musician's practice was organized. Undoubtedly, science has been lagging behind practice for some time, since scientific research itself, with the organization and conduct of experiments and the formulation of well-considered and thorough conclusions require a certain amount of time to be understood.

Summarizing the above, we confirm the fact that Ukrainian musicologists have studied a wide range of issues related to the history, theory, and practice of the musical and innovative sphere. Among the researched topics of the historical direction, there is the coverage of facts regarding the emergence, development, and penetration of innovative technologies into musical art (Rakunova, Fadeeva), the understanding of certain periods of the history of the musical and innovative sphere (Yuferova). Among the topics related to the problems of the practical application of music computer technologies, there are several studies on individual composing techniques (Haydenko, Tuchynska), technologies of processing and transformation of sound material (Haydenko, Rakunova), the field of digital sound processing (Rakunova, Fadeeva), features of algorithmic composition creation, music with spatial localization of sound (Rakunova, Tuchynska, Fadeeva, Yuferova).

Among the theoretical issues investigated by Ukrainian musicologists, the most important ones are the development of methods for solving analytical problems using samples of electroacoustic music (Haydenko, Rakunova, Yuferova), the study of artificial intelligence methods (Tuchynska, Fadeeva), the study structural and functional analysis of systems for fractal and algorithmic composition using PatchWork, OpenMusic, Fractal Music (Fadeeva, Haydenko).

Special attention of scientists was directed to the study of such areas as sound synthesis (Rakunova), musical programming (Tuchynska, Fadeeva), and graphic technologies for musical scores (Haydenko). Confident steps have been taken in the development of the research methodology for the musical and innovative sphere (Yuferova), in particular, the structural and functional analysis of computer MIDI sequencer programs (Fadeeva) and the use of computer systems in music science and pedagogy (Haydenko, Yuferova). The role of musical computer

technologies in the communication processes of modern Ukrainian music, which is defined as global (Yuferova) [22], is studied.

The achievements of Ukrainian musicology regarding the development of major issues in the field of music computer technologies over the past decades are quite significant. The practical value of the research mentioned in the article is undeniable. At the same time, we have to admit that there are still topics that are sensitive enough for musicological science that remain outside the attention of scientists. For the most part, they concern related sciences and, therefore, require the involvement of specialists from other professional groups. So, for example, various aspects of musical acoustics, processes of digital generation of tones, and creation of musical compositions based on them can be studied. Special attention can be paid to the study of aesthetic experience, and musical perception with innovative technologies and empirical methods. Also, the invention of new methods of teaching information technologies in the process of professional training of young musicians requires additional development.

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Primary Paper Section: A

Secondary Paper Section: AL

A COMPETENCE APPROACH TO THE ASSESSMENT OF THE QUALITY OF TEACHING IN EU UNIVERSITIES IN THE DIGITAL AGE

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Abstract: Pedagogical activity is multifaceted and complex, which requires the teacher to have a high degree of formation of various types of competencies - pedagogical, subject, cognitive, etc. Modern realities add digital skills to the model of teacher competencies. The use of digital resources and technologies in pedagogical practice is now not only desirable, but a necessary element. However, the rate of development of digital technologies is significantly ahead of the rate of professional development of teachers. In this regard, the development of a model of digital competencies of a modern university teacher seems to be an urgent task and is being carried out by various expert and scientific communities. In this article, including on the basis of an empirical study, some of these competencies are considered – those ones developed and used in the EU countries.

Keywords: Competence approach, Teachers' competence, Digital technology, Digital competence.

1 Introduction

In modern conditions of globalization and competition in the field of education, much attention is paid not only to improving the level of educational services, but also to developing the professionalism of teachers as the main providers of these services. A university teacher is one of the key figures in the development of a student's personality and professional skills during his studies at a university. In addition to direct teaching, teachers convey to the student their own motivational and value attitude to the discipline, their passion for the subject, thereby modeling a certain attitude of students to the material being studied.

Enhancing the professionalism of university teachers is increasingly more associated with the use of a competency-based approach. It is logical to move from the implementation of the competence-based methodology in the training of university graduates to its use in the training and advanced training of teachers. However, this task is no less difficult than the implementation of the competence-based approach in working with students. In fact, these two tasks are closely related. New requirements for the professionalism of graduates lead to the need to develop new requirements for the professionalism of teachers. The competence model of a modern university teacher is the embodiment of these requirements and, at the same time, the basis for objective certification of the university teachers' qualifications, largely independent of the subject area of activity [1]. At the same time, the activity of a university teacher is very multifaceted. It includes research, teaching, design, educational and methodological, organizational, expert evaluation, innovation and some others kinds of activities.

In the EU - the "cradle" of most of the world's innovations in higher education - education and training as part of lifelong learning play an important role in creating a European identity based on common cultural values. Education is designed to help young people to formulate and express their opinions, to be involved in social processes and, in this way, to shape the future of Europe, characterized by advanced democracy, solidarity, and inclusiveness [2]. Digital technologies enrich learning and offer new educational opportunities, the main quality of which should be equal accessibility for all segments of the population.

The new generation of students (Generation Z) lives in a digital environment, which is formed by digital technologies, including educationally significant digital technologies:

telecommunications technologies, Big Data, distributed registry systems, artificial intelligence, robotics components, wireless communication technologies, virtual and augmented reality technologies, cloud technologies, electronic identification and authentication technologies, digital technologies for specialized educational purposes, the Internet of things [7]. Trends in the digital transformation of the sphere of education require from a teacher a high level of ICT competence, for the successful implementation of professional activities, because namely teachers are called upon to prepare the younger generation for life and work in the modern digital society.

Today, digitalization, covering the field of education, is pushing the teacher to master the most relevant technological tools and methods for implementing the educational process. The pedagogical, managerial, technical staff of an educational organization is faced with the task of "smooth" integration of technologies and the use of digitalization opportunities in the educational space. However, the system of competencies of a university teacher in the digital age remains outside the scope of a comprehensive study. The competence composition of teaching activities and indicators of pedagogical excellence in the context of "digital" higher education also need to be developed. The purpose of this study is to identify and compare competency indicators that distinguish the best teachers from the point of view of students. The research methods included the development and testing of a questionnaire for data collection, checking the validity of the tools, conducting data collection on a larger sample, analyzing the data obtained, and comparing the results for classical and research universities.

2 Method

Currently, the study of the content of general and professional competencies for various profiles of pedagogical training in preschool and school education is ongoing. However, the problems of professionalism of a higher education teacher and his role in the development of students' professionalism have been studied to a lesser extent. Unfortunately, the issues of training personnel for higher education, and even more so indicators of teaching excellence in the context of higher education, remain outside the scope of a comprehensive object of study. Some believe that anyone who has a higher education diploma can become a teacher in the university, especially in the digital age, while a specialist can master methodological and other necessary skills on his own [17]. Meanwhile, A.V. Khutorskoy rightly calls competencies not only the totality of knowledge, skills, and abilities, but also the methods of activity necessary for productive actions in relation to certain objects and processes [13]. An even more expanded definition is given by V. Bolotov and V. Serikov, who understand competence as a complex synthesis of cognitive, subject-related practical and personal experience, an integrative value that incorporates concepts, methods of activity, personal experience and worldview [4].

However, researchers note the limitations of looking at competencies as static phenomena in a dynamically changing digital world [20]. From their point of view, competencies should make it possible to solve new problems in unfamiliar situations, while also transforming themselves. The distinctive features of competence, therefore, will be integration, volume, transferability, awareness, dynamism. Modern higher education is becoming the center of new ideas and innovations, provides the formation of a professional human resource, which is necessary for promoting the latest areas of education, science, and business. The driving force of the modern world economy is professional skills in the form of technologies of various modalities. The latest educational trend is to continuously replenish own knowledge throughout the whole professional life, with the active use of digital technologies. The strategies of professional activity, professional competence of a university

teacher in the digital age are formed as an integral structure. It represents an integral structure of such competencies, the totality of which is necessary to create pedagogical conditions for the implementation of the professional activities of a teacher [12, 19]. As it is known, the main areas of work of a higher education teacher include educational, methodological, research, and managerial functions.

With this in mind, the methodological basis of the study was as follows:

- The provisions of the system-activity approach (L.S. Vygotsky, A.N. Leontiev, S.L. Rubinshtein, etc.), according to which knowledge acquires value only when it is included in educational activities;
- The provisions of the personal approach, suggesting the development of the personality through the organization of its activities;
- The provisions of the integrative approach, which determine the systemic and holistic education, the integrative essence of the professional activity of the future teacher.

The theoretical basis of the study was made up of studies in the field of the competence-based approach, studies of the features of the organization of the information and educational environment of an educational organization.

3 Results and Discussion

The competencies of a teacher are directly related to the criteria for effective performance, so it remains an open question how those university teachers who provide the best educational results differ from their colleagues, being considered the best from the point of view of students, or having expert potential. The EAQUALS competency matrix, which sets standards in language education, identifies a cohort of expert teachers who have the following characteristics [3, 10]. First, they act as mentor to less experienced colleagues, guiding them in the selection and development of training materials, learning management, error correction, and professional development. Secondly, such professionals influence not only the activities of their colleagues and students, but also the educational organization; they play the role of a leader: they participate in the decision-making process, constructively evaluate the effectiveness of the educational process, develop new systems and processes, coordinate administrative and educational tasks, performed by others. Thirdly, their skills differ in breadth and depth; for this reason, such teachers use a wide range of approaches and techniques to develop different skills, manage groups of students with different cultural contexts, different ages, with different needs, at different levels, respond to special needs. Moreover, expert-level educators demonstrate critical thinking skills and flexibility by analyzing the effectiveness of assessment tools and feedback methods, critically evaluating tools and resources for professional development, developing alternative approaches, adapting to the context, adequately responding to unforeseen circumstances, improvising according to the needs of students.

Special mention should be given to the student-centered (personally oriented) education they carry out, which is manifested in the creation of a constructive atmosphere, the involvement and motivation of students, the support of discipline, the support of students at the group and individual levels, the development of educational autonomy of students. Much of the above comes with practice: routine actions are automated, so experts can be more flexible, make decisions faster and perform more complex tasks.

However, the digital age has added a new component to the aforementioned teacher competency framework: digital competency. The government of the European Union has for several years expressed concern about the slow introduction of digitalization processes in training and education. In order to study the state of the current level of implementation of e-learning in educational institutions of the EU countries, the

European Commission conducted a survey of citizens' opinions and published it as part of the Eurobarometer. According to it, the most important aspects of education and learning, as EU citizens believe, are related, in particular, to the teacher's ability to attract and motivate students. This area is considered the most in need of improvement (51%). Other areas that require special attention are the learning environment to stimulate creativity and curiosity (41%), as well as practical work experience in a company or organization (37%). The vast majority of EU citizens (95%) believe that the necessary competencies and skills can be obtained outside of formal education, in particular, foreign language skills, as well as practical skills that are in demand in different segments of the economy [6]. EU initiatives to digitize education have focused on formal educational institutions, from kindergartens to universities, but non-formal adult learning remains a key idea, as lifelong learning is one of the areas where, according to the study, the European Union is still not achieved the desired result. Therefore, in 2018, the so-called action plan was published, considered as a priority in the field of digital education.

In the last decade, a unique situation of dialectical contradiction has been created: a generation is growing that knows how to handle various gadgets from an early age, and this generation is taught by those who grew up in a system of classical linear education without constant access to the Internet and without social networks. The Eurobarometer data confirms these positions - only 20-25% of students in European universities are taught by teachers who are confident users of new technological achievements, 43% of Europeans do not have basic digital skills, and 71 million students in European countries have insufficient skills for the digital society. Given the need to take decisive action in the field of education, the European Commission adopted the main provisions of the Current Plan for Digital Education in Brussels on January 17, 2018, calculated up to 2022 [11].

Decisions to introduce innovations in education and training were made dynamically and consistently. In the Declaration, adopted in Rome in March 2017, the European Education Commission emphasized the EU's commitment to providing the population with better education and training. In October 2017, the Council of Europe called on the education and training system to be at the level of the digital age. In November 2017, at the Gottenberg Summit, the European Parliament, the European Council, and the European Commission on Education adopted the European Human Rights Framework, which emphasized the human right to quality and inclusive education and lifelong learning [21].

The communiqué "Strengthening European identity through education and culture", adopted at the Gottenberg Summit, presented a perspective vision for the European educational space, an important part of which was the Digital Education Action Plan. The first European Education Summit was held in Brussels on January 25, 2018 under the title: "Fundamentals of a European Educational Space for Innovative, Inclusive and Value-Based Education" [5].

The summit highlighted the lack of progress in the following areas: the basic skills of young people in Europe, the need to address inequalities in education systems, and greater investment in education. During the summit meeting, the issue of how to use the most modern scientific knowledge and methodological techniques to implement a value-based approach to learning was considered. Education must become part of civil society in order to achieve high-level political consensus to address the problems of inequalities in education and the development of social cohesion.

Key competencies were revised in terms of lifelong learning, listing the knowledge, skills and abilities necessary for lifelong learning, including digital competencies.

The action plan clearly outlines how education and training systems can make better use of innovation and digital technologies and support the development of relevant digital

competencies needed to live and work in an era of rapid digital change.

According to the plan, Europe's digital transformation is expected to accelerate due to the rapid development of new technologies such as artificial intelligence, robotics, cloud computing and blockchain. Like previous major technological advances, digitalization processes have a significant impact on all areas: everyday life, human interaction, education, and work. Foresight generalizations express expectations about the professions of the future - some jobs will disappear, others will need to be replaced, new jobs will be created, and new activities will emerge [9]. All these processes convince that the development of digital skills throughout life is a priority.

While digital transformation offers many opportunities, the biggest risk today is that society is not sufficiently prepared for such changes. Therefore, an extremely important role in such conditions is given to education. Namely education that should be the basis for the growth and integration of the individual, while the key task is to prepare citizens to make the most of the available opportunities and respond to the challenges of a rapidly changing, globalized, and structurally interconnected world.

Pan-European cooperation realized through the exchange of best practices, peer learning and exchange of evidence, is a proven way to support education systems in the states of the European Union. Common frameworks help define effective solutions, while common tools like eTwinning increase efficiency and expand the sphere of digital reach. Innovative practices in education, in particular digital ones, are widespread in the EU. They take various forms and include public, private, and non-governmental actors. However, innovation in education systems is not an end in itself, but a way to improve the quality and inclusiveness of education systems.

Research data from the European Institute of Innovation and Technology have shown that already now, without waiting for changes in legislation, stakeholders are actively using digital opportunities to improve teaching and learning [16, 18]. There is a need to share, discuss, promote, and scale up innovative practices. Concepts, tools, methods, processes, systems thinking and design thinking need to be more accessible to educators who for now tend to be under-informed about innovations in the education system.

Stakeholders in education and training are key players in the innovation process. Public consultations highlighted the need for more focused EU action to support the introduction of innovative approaches and digital technologies in education, as well as the development of digital competencies, including digital media literacy and digital security and well-being [8]. The focus is on the implementation and the need to stimulate, support, and expand the targeted use of digital and innovative educational practices. The plan is expected to be drawn based on a wide range of education and training stakeholders, including the business community, research, NGOs, and non-formal education where appropriate.

At the same time, innovations in the field of education and training largely depend on the competence of teachers in universities. The implementation of these innovations is possible only with an innovative approach that combines teacher training, curricula adjustments, and teaching materials to implement digital learning models. This organization-wide approach to digitalization of teaching and learning is reflected in the SELFIE self-assessment tool [14]. SELFIE is one of the 13 initiatives announced in the Digital Education Action Plan (2021-2027) of the European Commission. SELFIE for Teachers is a self-assessment tool based on the European Digital Competence Framework for Educators (DigCompEdu), which was developed to support teachers in developing digital competencies and in using digital technologies for effective teaching and learning. Users of the tool need to first fill out a questionnaire to identify their strengths and weaknesses in relation to digital competencies. The following step is personalized feedback pointing out areas for further development, and a customized

study plan that can be completed on own schedule. Moreover, the tool connects users of all levels of digital expertise to share knowledge, challenges, and best practices. The tool has been tested by 3299 teachers from 5 European countries. Five of these teachers from Portugal, Italy, Ireland, Lithuania and Estonia were invited to the event, where they were able to share their stories about the use of SELFIE for teachers and put forward suggestions for improving the tool [2]. SELFIE for teachers is currently only applicable to primary and upper secondary education. However, the European Commission is considering extending the use of SELFIE to teachers of higher education. The platform was perceived as user-friendly and useful for sharing experiences between teachers.

The digital competencies of teachers are the basis for the transformation of universities. At the same time, the structure of the competence model of a teacher of higher education can be considered as a tool that allows employers and society as a whole to demonstrate what competencies the university strives to provide for graduates and what relevant requirements the university imposes on its teaching staff.

The digitalization of higher education is accompanied by the incorporation of digital competencies into the structure of academic capital - the skills of teaching and research activities in the digital environment. They acquire an independent value, and also form the methodological basis for a set of professional competencies of a teacher.

Based on the framework model of digital competencies proposed by the Joint Research Center of the European Commission, variants of digital competency grids for various empirical objects are being developed. In particular, the grid for university teachers proposed by German scientists includes eight dimensions: IT literacy, the ability to search and work with digital information, communication and collaboration in a digital format, digital learning, digital identity and career planning, digital scientific activity, digital production of media products, analysis and comprehension [3]. Another version of the grid can be created on the principle of embedding a digital component into the basic competencies of a university teacher: scientific-subject, psychological-pedagogical, communicative, managerial and creative digital competence [1].

The empirical study of various aspects of digital competencies is gaining momentum: promoting digital literacy in the culture of education; measuring the level of formation of digital competencies; readiness of teachers to teach digital skills and barriers to this; differences in the profiles of digital competencies of students and university teachers, as well as in the development trajectory of social network communicative literacy, etc. [11].

Competency models are generated in response to the needs of the environment and social institutions. Rapid sociotechnical transformations make modeled competency grids a special case, not always relevant to current tasks and the current state of social systems, which actualizes the need to develop a more universal approach to studying the results and possible scenarios of academic development. In the empirical study of academic capital, it is important to take into account that its structure is determined by factors of different genesis - institutional, organizational-environmental, personal. In particular, t the institutional level, a frame of academic normativity and competence is being formed, correlated with the mission of the university and the functions of higher education in specific social conditions. The environment of the organization produces incentives for building competencies that affect the system of professional dispositions. The personal factor is the internal motivation of the teacher, his orientation towards professional development.

In our study, we attempted to identify and analyze the competence of the best teachers from the perspective of students studying at universities of two types: a classical university (Charles University in Prague) and a research university (Czech Technical University in Prague). The study was conducted in

several stages: 1) preparatory - development and testing of the questionnaire and checking its validity; 2) research - data collection; 3) analytical - analysis of respondents' answers and summing up the results of the study.

In the first stage, 40 second and third year students of the Czech Technical University (aged 19–20) were asked to answer two open-ended questions in writing. The questions concerned the qualities and activities of those teachers whom they consider the best. Each of the 40 students who took part in the survey suggested two to five qualities and performance indicators. Respondents were selected by the continuous sampling method. Based on the results of cluster analysis and processing of qualitative data, a second survey was compiled, which included the most popular answers from the first stage. In two closed questions, students were asked to choose from the proposed list the three most important, from their point of view, characteristics of the activity and the three personal and professional characteristics of a university teacher. In two open-ended questions, students were asked to briefly describe which teacher is competent for them, and which one is interesting, because these definitions were often found in the answers of the first stage of the study (during the testing of the questionnaire), but required clarification.

The electronic survey was sent to 1st-4th year students of the Czech Technical University and Charles University (aged 18-22). Participation was voluntary, 250 students of the Czech Technical University and 228 representatives of Charles University took part in the survey. Descriptive statistics were used to analyze closed responses; open responses were analyzed thematically.

The qualities of the best teachers identified at the first stage of the study (57 in total, some qualities were repeated) were grouped into clusters, as a result of which the most significant category included qualities that describe the positive emotional attitude of the teacher towards students (patient, understanding, friendly, responsive, etc.), the second most important category describes the professionalism of the teacher, it also included the most common answer "competent" (10 answers). The students who took part in the survey see the best teachers as responsible (5), professionals (5), who love their work (2), and who are interested in their work (3). Thus, at this stage, it turned out that students value exactingness, but at the same time objectivity and impartiality, and they want the teacher to be interesting to them.

Open answers to the question about the activities of the best teachers give a more complete picture of students' preferences, reveal similar trends in the respondents' answers and understand the meanings of the qualities identified at the previous stage. Five categories were identified here: organization of the learning process based on digital technologies (12 answers), attitude towards work (10), attitude towards students (13), personality-centered / student-centered learning (11), diversity and interest due to the widespread use of digital technologies, an emotionally positive reaction to digital transformations and a tendency to find opportunities in them (13). As in the previous part of the study, in the answers there is a need to establish interpersonal relationships at the student-teacher level, which is expressed in support, tolerant attitude, taking into account the opinions of students when communicating using digital technologies. From their point of view, the best teachers are interested in each of their students, see each individual' best side. Also, students most positively note teachers-innovators – 'agents of change', producers of new educational practices.

Professionalism and competence are revealed as a comprehensive and transparent organization of the learning process, clear requirements and a transparent assessment system. This is manifested in the fact that the teacher evaluates only objectively, regardless of his mood, meets deadlines, explains the material intelligibly and controls its perception, gives knowledge that will be useful in life. For students, passion for the profession and a responsible attitude to their duties in a teacher are important: such teachers prepare for the lesson even more carefully than the students themselves, identify themselves,

as persons, with their profession, are constantly looking for new approaches to solving professional problems.

It is possible to highlight the emphasis on student-centered learning, which is manifested in taking into account the needs of students, personalization of approaches simultaneously with an objective attitude towards them. For this reason, the best teachers track the individual progress of each student, choose the best teaching method for each student / group of students, try to adjust the program to the needs and abilities of the students. There is a need for students in a variety of content and methods of presenting information to increase interest in the subject: a teacher "ignites" with love for their subject, provides not only textbook material, but also additional information, knows how to present any material so that it is remembered, and, with the help of information technology makes each lesson interesting and different from the others.

At the second stage, from the options offered, reflecting the opinions of the participants in the first stage, the respondents - representatives of a classical university and a research university - chose the three most important characteristics of activity and the three qualities of the best teachers. Both groups of respondents consider subject knowledge and the ability to teach their subject as the most important characteristic, inextricably linked with digital competence (more than 80% of respondents). Also, important ones are the skills to interest students and motivate them to study (about 60% of respondents), to fairly evaluate the results of work, to create and maintain a comfortable learning atmosphere (about 50% of respondents). There is no significant statistical difference between the opinions of students of classical and research universities.

Speaking about personal and professional characteristics, it should be noted that the distribution of preferences in this case is more even than in the case of activity characteristics. Approximately at the same level students value competent, polite, fair teachers with a broad outlook (these qualities were chosen by 40 to 60% of students). Comparing the opinions of the students of the two groups, it can be noted that the students of the research university attach more importance to the competence of the teacher and his/her communication skills.

Open responses made it possible to understand what students mean by the concept of 'competent teacher'. As expected, a significant proportion of students' open responses were categorized as "subject knowledge" (47% of responses in both cohorts) and "teaching skills" (16% for classical university students, 14% for research university students). It is noteworthy that a significant percentage of open responses from students of a classical university were classified as "student-centered learning" (15% versus 4% of a research university) and relate to the practice of taking into account the needs and opinions of students in teaching practice.

We also managed to reveal what characteristics make teachers look interesting in the eyes of students. In this case, several almost equivalent categories were identified. First, judging by the students' open responses, the presentation of educational material (19% of the responses of classical university students, 20% of research university students) arouses their interest if it is based on the active involvement of digital technologies, provided with real life examples, is diverse, and motivates students to independent work. Diversity and interest were also noted regarding the use of practice tasks, games, virtual and augmented reality and educational presentations (14% and 17%, respectively). Experience, including work outside the university, as well as a broad outlook that allows the teacher not only to ensure the involvement of students, but also to develop their worldview, were highlighted in 21% of the open responses of students of the research university and 13% of the responses of students of the classical university. The percentages in the answers related to the categories "attitude towards students" (16% of the answers of students of a classical university, 9% - in a research university) and "interest in one's subject / business" (14 and 17%, respectively) also differ slightly. As a result, the results for groups of students from two different learning

contexts are similar. The following characteristics are emphasized in the responses of both cohorts of respondents:

- Knowledge of the subject and the ability to teach it;
- Excellent knowledge of digital technologies and their active use in the learning process
- Fair and objective evaluation;
- Motivation and involvement of students through a variety of materials and tasks, going beyond the classroom experience, using humor;
- Positive relations with students, orientation to their needs;
- The ability to maintain a comfortable atmosphere in the classroom.

Many of the identified characteristics are related to each other. A sense of humor and references to experience or other areas of knowledge help diversify classes and engage the audience. Developed teaching skills provide a fascinating presentation of the material, and an understanding of the needs and characteristics of students determines the relationship with them and the approach to teaching. In general, the results of this study are in line with what studies show in other contexts. Obviously, the best teachers not only know and teach their subject well, but also motivate students to comprehend it, including "infecting" them with enthusiasm for their discipline. A teacher with high professional motivation represents the most significant 'factor' in stimulating the motivation of students.

Consciously or unconsciously, the best teachers follow the theory of motivation: they create a working, but at the same time friendly atmosphere in which students can reveal their potential, they themselves are a model of a caring professional. Interest and motivation arising from it are important for students of both research and classical universities.

Developing M. McLuhan's idea that information and communication technologies are "a kind of extension of the human nervous system", teachers are faced with the task of comprehending the diverse aspects of this process and creating practices aimed at developing the personality of a human in the information society [15]. One of the main characteristics of the formation of a knowledge society is its openness, interpreted in pedagogical, political, and technological aspects. The strategic goal of the current stage is to conduct empirical research aimed at developing a wide range of forms of e-learning and creating a theoretical base for the pedagogy of the information society.

Total digitalization creates a need for new models of organizing the educational process, providing students with fundamentally new development trajectories, which, in turn, leads to the complication of pedagogical activity and the transition to learning in a branched digital ecosystem that helps the teacher successfully solve new problems. An analysis of the studied approaches to assessing the digital competencies of teachers shows the need to create a comprehensive teacher support system that includes various elements of a competency-based model and is focused on accompanying the teacher in the process of solving problems of professional and personal growth.

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FOOD POLICY OF THE SOVIET GOVERNMENT IN UKRAINE THROUGHOUT 1917-1923 (BASED ON MATERIALS FROM CHERNIHIV REGION)

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Abstract: The article examines the problem of the food policy of the Soviet government, which was carried out in Chernihiv region in 1917-1923. Based on the use of a wide range of archival sources and periodical literature of those times, the author considers the main goals of this policy, the methods of its application and analyzed results. Special attention was paid to the state authorities responsible for the implementation of this policy in practice. The author considered their structure, equipment, changes that occurred in the structure of the apparatus during its reformation. The period 1917-1920 was characterized by considerable anarchy in the conduct of food policy, which was an objective result of the time, because a civil war was raging in Ukraine. The campaign of 1921-1922 was still ongoing under military communism, but with the transition to the New Economic Policy. It was characterized by the active use of various non-economic measures by the Bolshevik authorities, aimed at draining food resources from the peasants. The campaign of 1922-1923, when the surplus appropriation was replaced by a food tax, which was collected in money and only partially in kind, gave the Bolshevik government more positive results. At the same time, the author states that due to a number of objective and subjective reasons, the new government did not manage to fully form a strong apparatus of food policy bodies, which inevitably affected the results of the policy as a whole. The author came to the conclusion that the entire food policy of the Bolshevik government was oriented to the needs of maintaining the Red Army and the administrative apparatus of the province, while the needs of ordinary peasants were considered secondary.

Keywords: Food policy, Food distribution, Food tax, Bolsheviks, Soviet government, Chernihiv province.

1 Introduction

At the current stage of the development of independent Ukraine, in the conditions of economic and political reform of the state, the interest of researchers in studying the history of the Ukrainian village of the national liberation revolution era and the establishment of Bolshevik power in the country has revived. The history of the Ukrainian peasantry of the beginning of the 20th century, for a number of reasons, has always attracted the attention of researchers. First, the peasantry made up the bulk of the population of the Ukrainian lands at that time. Secondly, the Bolsheviks, who seized power in Ukraine, immediately began to implement a harsh repressive policy related to the eradication of private property in the countryside, the pumping out of food, the suppression of religion and the radical restructuring of traditional peasant culture and lifestyle. Attempts to build socialism in the Ukrainian countryside at a rapid pace met with rejection and active opposition from the peasantry. That is why, during a small period of time, the Soviet government was forced to radically change its policy several times. The transition from the uncontrolled actions of the era of the civil war was changed to the policy of "military communism", which after some time was replaced by new economic policy (NEP). These changes affected the goals and methods of implementing food policy and the activities of the Bolshevik food authorities operating in Ukraine.

2 Method

The methodological basis of the study is the dialectical method of cognition, which involves the consideration of a historical phenomenon in development and interconnection with other phenomena. From among the general scientific methods, cognition, analysis, synthesis, comparison, and others were used, from among the specific ones - comparative historical, concrete historical (considering certain measures of the Soviet food policy), problem chronological (identifying the reasons for the transformation of food policy, the development of its forms in time), statistical (determining the results of food policy, the impact on agricultural production, and so on). In carrying out this study, reliance was placed on the basic principles of historical knowledge - historicism, scientific character,

objectivity. Such an approach to the analysis of phenomena and events, to a certain extent, makes it possible to understand the real situation in those conditions, the positions of various political forces, to understand the policy of the Bolsheviks, their own assessments of the food situation and to explain what guided the Soviet government in making decisions to overcome the food crisis.

3 Results and Discussion

Chernihiv province, as one of the regions that was quickly captured by the Bolshevik armies and where Soviet power was established, is of great interest with regard to the problematic under consideration. The study of the food policy of the Bolsheviks in Chernihiv region (*oblast*) during the specified period enables researchers not only to establish and trace the common features of the Bolshevik course on providing the new government with agricultural products, which were common to all Ukrainian provinces, but also to isolate and analyze its regional features, to identify changes that occurred in food politics and determine their causes, analyze the forms, methods of its implementation and results, find out the complex of problems faced by the Soviet food bodies and characterize the measures aimed at overcoming them.

The historiography of this issue includes a significant number of monographic studies and scientific articles in periodicals. Already in the 20s of the 20th century, the first articles covering the first steps of the Soviet government in agricultural policy in Ukraine began to appear [1, 4, 8, 15]. The works of Soviet historians of the mid-1950s and mid-1980s, despite the introduction of a significant array of archival sources and new statistical data into scientific circulation, were marked by the influence of ideological dogmas in the coverage of historical events and the bias of conclusions [2, 3, 7, 10, 12]. A new wave of research interest in this topic was brought by Ukrainian historians after the declaration of Ukraine's independence. The works of V.F. Verstyuk, O.I. Hanzha, G. Heorhizov allowed looking at this problem in a different way [5, 6, 17]. The conclusions reached by domestic Ukrainian historians were completely opposite to those announced in Soviet times. From praising the policy of the Soviet government, they moved to sharp criticism and condemnation of the activities of the Bolsheviks in the Ukrainian countryside. Today, this problem requires more detailed study and analysis, along with unbiased conclusions. At the same time, the history of the pro-Bolshevik politics and the activities of their food bodies in Chernihiv region was not the object of a separate study by researchers and does not have its own historiography.

Immediately after the Bolshevik seizure of power in October 1917, the RSFSR government turned its attention to Ukraine's food reserves and raw material potential. The capture of the territory of the Ukrainian People's Republic by Soviet troops at the beginning of 1918 allowed representatives of the new government to launch activities to extract resources from Ukrainian territories. However, this policy was short-lived, because the advance of the armies of the Quadruple Alliance forced the Bolsheviks to quickly retreat. During the next Ukrainian-Bolshevik war, units of the Red Army managed to return the territories of Ukraine under the control of the Soviet authorities. The Soviet food policy and special bodies responsible for its implementation began to be formed immediately after the transition of the Chernihiv province to the power of the Bolsheviks. Speaking in March 1919 before the delegates of the 3rd Congress of the Communist Party of Ukraine in Kharkiv, the head of the All-Russian Central Executive Committee of the Communist Party of Ukraine Ya.M. Sverdlov stated: "The resque of the entire revolution, not only the Russian one, but also the international one, is in the hands of Ukraine. You must realize that the Russian Revolution is now going through a very critical period because of the breakdown of

transport on the one hand and the breakdown of food on the other. Food and fuel are here in Ukraine, and both can be obtained from Ukraine only if strong state institutions are created. And they will be created when strong party organizations are created" [20, sheet 8]. However, on the ground, representatives of the Soviet authorities began to act much earlier. At the end of January 1919, the Provisional Workers' and Peasants' Government of Ukraine issued and publicized the decree "On the organization of food affairs in Ukraine", according to which a state monopoly on the procurement of food products was introduced and fixed prices were established for the purchase and distribution of food products. As one of the contemporaries of the events wrote, "The revolutionary proletariat started a new war for the possession of bread, against the landowners, village kulaks, and other servants of capital" [11, p. 4].

Before the First World War, there were no food organizations as special institutions in the Russian Empire. Supply issues were introduced and governed by the laws of the free market. But during the war, when complications began to appear in providing the armies and the population with foodstuffs, the tsarist government tried to regulate the food issue by partially restricting private initiative in the field of using grain surpluses. However, the tsarist government did not manage to solve the food problem until the end. The food crisis was constantly deepening, which eventually became one of the reasons for the overthrow of the autocracy.

Four main periods can be clearly distinguished in the work of the food bodies that operated in the territory of the province in 1917-1923.

The first period lasted from the beginning of 1917 to the February Revolution. At that time, the food affairs were in the hands of the Commissioner for Affairs of the Ministry of Agriculture for the purchase of bread for the army.

The second period lasted from the February Revolution to the occupation of Chernihiv region by German and Austro-Hungarian troops. During this period, the law of March 25, 1917 on the establishment of a grain monopoly was adopted.

The third period started from the time of the capture of Ukraine by German troops at the beginning of 1918. The Food Boards were liquidated, and the State Bread Bureau was organized in their place. In this way, the food affairs was centralized, which was necessary for Hetman P. Skoropadsky, but primarily for his German allies, to collect and export food from Ukraine.

After the seizure of power by the UNR Directorate, the previous Food Administrations were restored. However, it is not possible to touch on history in detail and evaluate the work of the Commissioner for Affairs of the Ministry of Agriculture and the State Bread Bureau, due to the fact that practically all documents were destroyed in the period of 1919 during the evacuation of the food authorities of the province to the city of Bryansk, which is also confirmed by the Bolsheviks themselves [13, p. 2]. As for Food Administrations (ProdUpravs), they were monopoly state bodies for the procurement of products to provide for the army, state industry and the city population, and their branches - city food committees - provided for the city population exclusively through the card system.

Only from the beginning of 1919, as the Soviet power began to be restored in Chernihiv Oblast, 'food cells' began to be formed in individual settlements, whose primary task was to provide food for the units of the Red Army, which continued its offensive against the armies of the Directorate of the Ukrainian People's Republic. The importance of the Chernihiv province in the matter of food supply was noted in the report by the provincial representative of the Ukrainian People's Committee of Ukraine Chaikovsky. On January 22, 1919, he reported: "Chernihiv Oblast is a significant part of our territory freed from bourgeois power, 11 counties were completely recaptured by our troops from the Petlyurites. Strongly developed industry - cloth, hemp and spinning, sugar, forest, paper, leather, matchmaking,

bread-rich southern districts - all this, with the presence of significant reserves of raw materials and finished products, makes it possible to obtain from this province a significant amount of goods for exchange with Russia and Belarus, providing the Red Army with bread and other products, and finally - to meet the needs of other provinces of our Republic" [17, sheet 55].

The provincial food commissariat was organized back in January 1919 in the city of Klintsy. It was subordinate to the local revolutionary commissariat (*Revkom*), and in February it moved to Chernihiv. As Chernihiv region was captured by Bolshevik forces, district food agencies began to be organized in the form of district food commissariats.

The winter-autumn period of 1919 was one of the most difficult in the implementation of food policy and the work of provincial food authorities. The new government immediately faced a number of problems that it could not solve. Firstly, there was not enough food. Thus, in the minutes of the Krolevetsk County Congress of representatives of the county VRCs, it was reported: "Klyshov Volost - all food was pumped out of the Volost through frequent requisitions. The population demands the introduction of free trade; Altynivska volost - the food issue is acute; Ponornytsia Volost - Soviet money is poorly accepted" [20, sheet 51]. At that time, it was reported from Glukhiv County: "There is no food in the county. Red Army soldiers do not receive food, uniforms, and salaries. Disturbances on this ground among the Red Army resulted in uprisings and arbitrary "requisitions". We are in a hopeless situation. Get the troops out of here immediately or give them food immediately. We are waiting for your help" [18, sheet 135]. Food prices can serve as a characteristic indicator of the situation on the food market at this time. Thus, the newspaper "Nezhinsky Vedomosti", which was published during the Denikin regime, reported: "In the last days of the Bolshevik regime, in the city, the following was extremely expensive: a pound of bread - 120 kr., a pound of meat - 75-100 kr., a pound of lard - 500 karbovans (krb.), butter - 500 krb., a glass of milk - 15-20 krb. With the entry into the city of Dobramia, the prices decreased: a pound of bread - 25 krb., meat - 30-40 krb., butter - 200 krb., lard - 140 krb., salt - 20 krb. The food issue in the county is very acute. The retreating Bolsheviks took all the food from the peasants, leaving nothing even for sowing. All the fodder was also taken away" [16, p. 3]. After the retreat of the White Guards and the occupation of Chernihiv Oblast by Bolshevik troops, the newspaper "Znamya Sovetov", which was the printed organ of the Chernihiv Provincial Revolutionary Committee and the Provincial Committee of the RCP /b/, reported on December 14, 1919: "Life in Nizhyn has returned to normal. The food crisis is completely over. All products are available in large quantities and are relatively cheap. A pound of bread - 20 krb., white - 35 krb., lard - 75 krb., a pound of meat - 20 krb., herring - 20 kr., a full lunch - 50 krb. ... Life in Borzno is very cheap. Bread costs 30 krb. per pound. In the Horodnyanskiy district, a pound of bread costs 75 krb. at the market. According to local wage rates, this is too high price for workers" [14, p. 3].

Secondly, the Bolsheviks did not manage to quickly build a strong apparatus not only in the localities, but also in the center. Thus, in the report on the inspection of the commission of the Provincial Committee of the Provincial Committee, it was emphasized: "The commission is a completely sad sight... Hopeless discord, two warring camps, lack of stewardship, irresponsibility, drunken appearance at meetings, hostile attitude towards new people... the staff does not meet its purpose and is parasitic" [17, sheet. 62].

An attempt to solve the food issue by organizing agricultural communes also did not yield a positive result. By mid-May 1919, 46 communes had been organized in Chernihiv region, although M. Skrypnyk calls the number 55 collective farms (in terms of the number of registered communes, Chernihiv Oblast was ahead of the rest of the provinces of Soviet Ukraine). The communes, which had extensive state support (land, equipment, money), could not compete with agricultural artels and

cooperatives. Characterizing the situation in the province at the end of the summer of 1919, the local Bolsheviks were forced to state that "A poor man or an outsider goes to the commune, and a middle peasant willingly goes to the artel, it is they who need to be "neutralized" politically and economically" [9, p. 65]. Therefore, after the expulsion of Denikin, the Bolsheviks abandoned the practice of the ill-conceived and forced organization of communes, which discredits "the Soviet government and repels the peasant masses from the very idea of communism". By mid-August 1920, only 34 collective farms remained in Chernihiv region [9, p.67].

Local Bolsheviks saw the way to solve the problem and fulfill the norms set by the center in the implementation of a number of measures. The leadership of the province made the following proposal: "The first step in solving the food issue should be a request to the Rev. Council of the 12th Army (its spare parts were quartered on the territory of the province - O.L.) for the immediate release of the poviats from any orders, since the further pumping of bread is unthinkable, there can be no question of excess products, pumping out products will lead to the most negative complications. However, removing of orders alone is not enough. It is necessary to demand permission from the All-Ukrainian production bodies for workers and public organizations to purchase products in the agricultural regions of the provinces of Ukraine, deviating as a last resort from the policy of fixed prices. The latter circumstance contradicts the basic principles of our party's food policy, although it should be noted that in Ukraine, some distortions have been allowed in the food policy of the Central Committee" [19, sheet. 62]. After that, the central government did everything not so much to ease the food situation in the province but rather to stop such frank criticism from the seats. Available documents show that in the following years, representatives of local state and party institutions no longer allowed themselves to express seditious opinions and criticize the central government.

The Chernihiv Provincial Food Commissariat (Gubprodkommissariat) worked until October 1919, and after the occupation of the territory of the province by Denikin troops, it was evacuated to the city of Bryansk. But already in November, after the expulsion of the Denikinites, the Provincial Committee for Food and Agriculture was reorganized by the Food and Agriculture Committee of the XII Army in the form of the Special Military and Food Commission (*Oprdkomgub*). Its structure was as follows: the Regional Development Committee was headed by a commission headed by the chairman, which was subordinated to seven departments (statistical and economic, legal, department of reception and procurement points, information and publishing). The latter published the weekly newspaper "Food Bulletin". For comparison, in 1920-1921, the Odesa District Commissariat published the newspapers "Plow and Hammer" ("*Pluh y molot*"), "Food Questions" (Voprosy prodovolstvyia), "Food Month" (Prodovolstvennyi mesiats) and two magazines – "New Food Policy" ("*Novaia prodovolstvennaia polytyka*") and "Bulletin of the Regional Commissariat" ("*Biulleten Oprodkomhuba*") [23, p. 57].

However, the conditions under which the Chernihiv District Commissar worked were extremely difficult. There was a great deal of confusion in the relations between the People's Committee and the higher authorities. The Regional Commissariat was subordinated simultaneously to the XII People's Committee of People's Commissariat, the People's Commissariat of the South-Western Front, the People's Commissariat of the USSR and the People's Commissariat of the RSFSR. Of course, this led to contradictory orders, which complicated the work of the Committee and its local bodies. This was confirmed in the report by the above-mentioned provincial commissioner Chaikovsky: "...attempts to interfere on the part of the People's Commodity Committee of the RSFSR, the so-called Central Procurement, all kinds of Head Offices (*Glavks*) and Centers bring disorganization into the work of provincial and district institutions, against which the most decisive measures have to be taken" [17, sheet 55].

On the other hand, the political situation in the province was not favorable for the establishment of productive food work (peasant uprisings covered entire counties, gang activity, lack of local forces to fight them, constant misunderstandings with local administrative authorities). City and county executive committees considered food bodies their departments, interfered in their work, removed and appointed commissioners at their discretion. This is vividly illustrated by one of the episodes that took place in Nizhyn. After the liberation of the city from Denikinites, the city council was formed in the city, and departments began to operate under it, including the city Food Committee. I.M. Chepela was appointed its head of it. The only criterion for his appointment to this position was that he was a communist. In addition, the city Food Committee demanded significant personnel reinforcement. The Municipal Revolution Committee (*Miskrevkom*) reported that 10 more communists are needed for its normal functioning [22, sheet 6]. However, a member of the Province Revolution Committee (*Gubrev Committee*) Podolskyi, who was on an inspection trip to the city to settle the food issue, as well as to take army food orders from the territory of the province, by his order "removed the appointed head of the Region Food Committee (Oprodcom) T. Chepello (correctly Chepela - O.L.), who does not know at all of the food affairs, and appointed Mr. Fradko. Revolution Committee (*Revkom*) did not agree with this and stood up for Chepela". Later, in his report at the joint meeting of the *Gubrevkom* and the *Oprodkom* on December 24, 1919, Podolsky raised the question of the need to settle issues between the Province Revolution Commettee and the *Oprodkom*. The meeting made a decision to prevent the intervention of the regional committees in the technical work of the food bodies, establishing strict control over them by the provincial authorities [22, sheet 8].

At that time, the basis of the food policy of the Bolsheviks remained food distribution, which was carried out by forcibly seizing bread and other products from the peasants at the established rate of products and state prices. One of the leaders of the local Bolsheviks, E. Mazanko, proclaimed at the time: "Soviet power has moved from the sentimental monopoly of Kerensky's time to the state structure and declared a merciless war of speculation on food stocks and seized grain surpluses" [11, p. 4]. As a basis for the breakdown of the agricultural population, the Regional Development Committee set the tithe rate of taxation for all farms that had at least 3 deciets of arable land, while the tithe rate of taxation gradually increased in accordance with the total amount of land in the farm. At the end of 1919, the above-mentioned Podolskyi noted in his report: "As for the views for food, in the near future we should expect up to 10,000 poods of sugar, up to 1,000 poods of soap, and up to 300 poods of shag. From bread products for January-April 1920, a distribution was made: wheat - 100,000 poods, buckwheat and millet - 65,000 poods, beans and peas - 80,000 poods, oats and barley - 100,000 poods" [22, sheet 8].

In May 1920, in connection with the offensive of Polish troops and the army of the Directorate of the UNR, Special provincial food commission (*Oprodkomgub*) was evacuated to the city of Novgorod-Siversky, from where it soon returned. At the same time, a procurement department was organized under it to establish systematic work and eliminate "distortions" on the ground. However, without clear tasks and instructions from the center, the food bodies were provided with income from various food expeditions and surplus appropriation carried out by the food agencies and food detachments on the ground.

Since the transfer of all sub-departments of the Procurement Department to independent institutions, they have been given the task of systematic and planned receipt of products at the disposal of the provincial food body. The first orders were insignificant, so the order for livestock was issued for only 215 heads within the entire province [13, p. 2]. Meager revenues forced the Regional Food Committee to enter into contractual relations with cooperative organizations for the procurement of poultry, canned meat, salting of vegetables, and the supply of onions. The strengthening of the power of the Bolsheviks in Chernihiv

Oblast, after the retreat of the Denikinites, gave the provincial food authorities the task of intensifying their work. The detachment of the departments from each other did not contribute to this, so the Congress of Provincial Commissars of Production in August 1920 decided to reorganize the procurement apparatus of the province and unify it. Decision-making on the reorganization of the apparatus coincided with the receipt from the center of surplus appropriation layouts for all products, which were several times larger than the ones that the Regional Food Committee outlined in its program and for the implementation of which all the preparatory work was carried out in the center and on the ground. The main reason for these changes was the attack of Soviet troops on Warsaw and the increased need for food and fodder to support the Red Army. The combination of operational and organizational work immediately had a negative impact on the procurement campaign' results. The Special Provincial Food Committee was informed that during current food year, Chernihiv Oblast will have to feed itself exclusively on its own bread. The outfits sent from the center exceeded the "most daring expectations" of the People's Commissariat of Province. The order for potatoes in the amount of 1,000,000 poods exceeded one third of the entire total Ukrainian distribution, for vegetables - in the amount of 3,000,000 poods – it was not at all possible [13, p. 2]. If to add to this the conditions in which the procurement campaign was conducted (complete absence of specialists and experienced temporary workers, managers, even people with initiative, as well as lack of management instructions of the center, inertia, and at the same time a "peculiar" understanding of the tasks set, insufficient help from party committees and of the provincial trade union councils (the mobilization of party and trade union forces during the 'food month' gave only 11 people), the lack of clarity in relations with cooperative institutions, which were reinforced by a wide wave of banditry, terrorizing the population and the physical destruction of food workers, looting of warehouses, depots and transport), then it becomes clear why it was not performed [15, p. 2]

Table 1: Implementation of the food distribution for February 1, 1921

Products	Planned (poods)	Harvested (poods)	% of completion
Grain-bread	1362200	566103	41
Oat	590100	267065	45
Bird	10650	3999	38
Horned cattle	262644	170694	65
Pigs (live weight)	239550	26234	11
Sheep (live weight)	931559	52558	16
Potato	10000000	872994	9
Hay	5000000	946340	19
Oilseeds	1000000	391138	4

From April 1921, the *Oprodkomgub* began to organize the apparatus and at the same time started to prepare for a new campaign. The 1921/1922 campaign took place under more favorable conditions. At that time, the structure of the Food Committee of Province was as follows: 5 departments, and the district food apparatus consisted of Poviets Food Committees (*Povitprodkoms*) and District Food Committees (*Rayprodkoms*). Povitprodkoms also had departments, as well as Oprodkomgub; in addition, all reception points located on their territory were under the leadership of povitprodkoms. The apparatus that carried out work in the provinces consisted of former sales agents and persons seconded by the party and trade union bodies, and partly of persons recruited from outside. The administrative apparatus participated in the campaign in the form of village and province tax commissions. But at the end of 1922, sales tax revenues were drastically reduced. In compliance with the order of the People's Commissariat of the Republic of Ukraine, Oprodkomgub was forced to resort to extreme measures in order to "raise the embankments". A food month was declared in the province, but it gave insignificant results,

increasing indicators only for pulses and oilseeds. The results of the activities of the provincial food authorities are clearly demonstrated in Table 2.

Table 2: Implementation of the food tax for the end of 1921 - beginning of 1922

Products	October 1921	November 1921	December 1921	January 1922
Grain-bread	705506	108857	53048	39903
Grain-forage	488952	54269	18393	17686
Beans	197554	32405	1607	10687
Oilseeds	67682	9028	2535	4095
Forage	1056606	691499	406163	256507
Potato	1328238	841911	9979	7120

That is why the Bolsheviks were resorting to tried-and-tested tactics of repression. Already in December, the Food Revolutionary Tribunal (*Prodrevtribunal*) and people's courts have been actively operating. As a result, sentences for non-payers increase from 194 (November) to 1473 (December) [13, p.2]. Forced measures were taken to combat the concealment of products. In January, 25,997 tithes of untaxed land were discovered, on which the peasants did not pay the tax, and for the entire campaign before that, this figure was only 29,019 tithes. A total of 283,212 tithes of untaxed land were found in the province [13, p. 3]. In February-March, the "February-March pressure" was carried out in Ukraine, which brought additional results - 33,088 tithes of tax-free land. In March, in order to force the peasants to abandon the concealment of untaxed land, a collective settlement was introduced. "Pressure" continued until April and brought the following results: bread grain - 2460819 poods (100%), feed grain - 1140150 poods (85%), grain - 606691 poods (80%), legumes - 533772 poods (218%), oilseeds – 150,243 poods (94%), potatoes – 3,500,948 poods (56%), hay – 1,754,432 poods (50%), straw – 1,145,267 poods (149%). The food tax was expressed in rye units: 6,672,402 poods were planned, 6,064,910 poods (91%) were 'executed' [15, p. 3]. As the local Bolsheviks themselves pointed out, although the end of the campaign gave the authorities almost 100% results, it caused significant damage in terms of morale, causing dissatisfaction among the peasants with the food tax and food workers, and the slogan "connecting the city and the countryside" was not fully implemented. Here is the assessment of the campaign of 1921/1922 given by the local Bolshevik E. Mazanko, who was a direct participant in those events: "The tax of 1921-1922, although it did not cause significant comments, but the variety of products collected under the tax, when the peasant was forced to look for parsley that is missing from his farms on the side or to get horns to contribute the raw material part of the tax, made up the most negative part of the tax. Later, it was eliminated, but many other taxes were added to the food tax" [11, p. 4].

The negative results of 1920-1922 forced the Bolsheviks to resort to another reform of their industrial policy in Ukraine and the system of food bodies operating there.

The new campaign of 1922/1923 was already underway after the issuance of the decree on the single tax in kind, which could not but affect the tasks and methods of its implementation. It, like the following ones, was held under the slogan of rebuilding peasant farms and easing the tax burden for the peasantry. The military and food apparatus of the Province Food Committee was demobilized and renamed to *Gubprodkom*. Numerous cadres of food army men, food militia, barricade posts, food revolutionary tribunals were disbanded and members of trade unions from the food front were demobilized. The reform of the food apparatus separated tax and fiscal functions from economic ones. District tax bureaus were formed instead of the District Product Committees that existed in 1921/1922. Volost food committees were given exclusive tax functions. The economic apparatus of the province, organized into procurement offices, was directly subordinated to the Provincial Committee of Food (*Gubprodkom*). The former procurement department of the Gubprodkom was divided into two separate, completely

independent departments - tax and economic and procurement, whose work was coordinated by the deputy of the Gubprodkom and the planning commission. Tax inspectorates, village councils, and political executive committees became the primary tax authorities, to which the functions of village and volost tax commissions were transferred. This was done to achieve two goals - the distribution of tax and economic functions and the transfer of the main burden of work to village councils and Volost executive committees. While the first goal was achieved relatively quickly, the second, throughout the entire campaign, was not fully achieved. The fact is that, unlike the campaign of 1921/1922, which took place under the banner of maximum attention to the sales tax on the part of party and trade union bodies, the campaign of 1922/1923 began in the conditions of liquidation mood, which covered all levels of power. In addition, the representatives of the food apparatus tried to carry out the work on their own and, therefore, did not turn to the Gubpromkom for help in time. At the same time, for village councils and volost executive committees, this work turned out to be new, imposed by the center, and, therefore, they were not prepared for it. Only at the moment of the direct collection of sales tax, when a real threat of disruption of the campaign became apparent, due to the weak participation of the administrative and party apparatus, the issue of active "involvement" of village councils and volost executive committees was brought under the control of the central provincial authorities. Thanks to a number of organizational measures (organization of provincial and volost food triads, mobilization of about 200 party workers), as well as measures of administrative coercion, the volost apparatus gradually began to be involved in work [13, p. 3].

The campaign of 1922/1923 took place in the conditions of insufficient campaigning training of the population, weak participation of village councils, and throughout the campaign the tax was collected by means of "incessant pressure" on the payers, village councils and volost executive committees. But compared to 1921/1922, in the campaign of 1922/1923, the Bolsheviks had a clear tax law, a stronger grassroots apparatus, the repressive measures applied against non-payers were exclusively legal in nature, and were not the result of the arbitrariness of the workers. Strict administrative measures were applied to non-payers, which brought greater legality to the punitive policy of food bodies. Of course, there were local excesses and exceptions (in the Nizhynsky povit, Ichna and Nosivka), but they were isolated ones, and their organizers and executors were severely punished. The system of tax payers' complaints was streamlined, a system of benefits was introduced for poor farms, as well as for farms specializing in the cultivation of special technical crops. Despite the fact that the government did not manage to eliminate all the troubles, the results of the campaign turned out to be positive for it. On January 1, 1923, the tax in Chernihiv Oblast was paid in full, while it was not collected even in March from the campaign in 1921/1922. The 6th Province Council of Volost Food Commissars and Chief Tax Officers, which took place on February 2-4, 1923 in Chernihiv, confirmed 100% implementation of the food tax.

Table 3: Execution of food tax in Chernihiv province in 1922/1923

Products	Planned (poods)	Harvested (poods)	% of completion
Grain-bread	5191290	4827900	93
Grain-forage	1587083	1351900	85
Cereals	858828	112060	131
Beans	281870	24920	88
Total bread	6496722	7558600	177
Oilseeds	117611	51800	52
Feed volume	921587	580600	63
Potato	7285500	64580	88
Horned cattle	119000	232357	194
Sheep	20300	7076	94
pigs	21000	4444	21
Salo	57710	8358	14

At that time, an attestation commission was organized to control the food bodies themselves, and measures were taken to strengthen the fight against bribery. The result of these measures was the dismissal of 30% (!) employees of the food bodies of the province [13, p. 3].

During the period of the tax company, the Gubprodkom had at its disposal granaries with a total volume of 235,148 poods with a total tax amount of 1,2126,561 poods. This was completely enough for the provincial authorities, because only 40% of the tax was collected in kind, while the rest - in money. Statistical data for the province in the campaign of 1922/1923 are as follows: 348670 households, 1781514 eaters, taxed land - 182098532 tithes, and livestock - 680634 heads. Compared to the previous campaign, the results were greater by 4,199 farms, 7,549 eaters, and 87,566 acres of land. As a result of the fight against land tax evasion, 2,108,070 acres, 129 farms, 466 eaters, and 1,864 heads of livestock were discovered in the province [13, p. 3].

In the campaign of 1922/1923, the authorities set a clear deadline for paying the tax. Thus, the tax was paid in kind until November 1 (60%) and January 1 (40%). Cash tax was also paid in installments - on January 1 (35%), March 1 (35%), April 1 (15%), and May 1 (15%). The money tax was calculated by the Chief Tax Office of District Product Committees and the control commission. The main obstacle in calculating the tax was the low payment of peasants' labor (1 krb. 50 kopecks in Soviet money ("radznaks") from the farm) and the lack of qualified personnel. These two circumstances made it impossible to complete the work on time [13, p. 4].

The Department of Bread Inspection was created under the Provincial Committee of Food, and the territory of the province was divided into tax districts. But despite the clear schedule for the start of tax collection for September, only 33.5% was collected (819,028 pouds, 570,167 krb. 92 kopecks, and bread loan bonds – 284,127 pouds). For October – 295,382 poods, bonds – 378,820, money – 2,681,822 krb., or a total of 68%. In November: in kind - 400,243 poods, in bonds - 605,023, and in money - 2,871,252 krb. or 37% of the provincial tax [13, p. 4]. At the same time, the financial cash registers that collected the tax were not sufficiently staffed by staff, which led to the fact that payers waited in lines for several days (!). This led not only to inconvenience for people trying to pay tax, but also to their financial losses. Inflation daily "ate" the financial savings of the peasants. Taxes were paid in Soviet marks in terms of the gold red coin (chervonetz) put into circulation in 1922. Thus, on November 1, 1923, the exchange rate of the red coin was equal to 7,000 krb. by "radznaks", on November 2 - already 7,100 krb., on November 3 - 7,250 krb., on November 4-5 - 7,500 krb., and on the 6th of that month the rate rose to the mark of 7,650 krb. [13, p. 3].

Another question that acutely arose during the food tax campaign and to which the Bolsheviks themselves were unable to answer was the cost of the campaigns themselves for the new government. The cost of the campaign of 1920/1921 cannot even be approximated, because only the number of personnel workers participating in it was several thousand. If to add to this the cost of preparatory work and other expenses, in the absence of any control and reporting, the sums spent become sky-high. Gubprodkom acted in this campaign as a "generous cashier who distributed money and bread at the first request" [13, p.4]. Thus, the campaign did not pay for itself. The organization and conduct of the 1922/1923 campaign, according to "rough calculations", cost 17.3% of the collected tax. As early as 1922, the highness of the cost of the apparatus and overhead costs became clear to the Provincial Committee. Therefore, in September 1923, the temporary staff of food bodies was dissolved, the staff of the Gubprodkom was reduced by half, as well as the staff of procurement offices, 7 of which were turned into bulk stations.

Summing up, it should be emphasized that the food policy of the Bolsheviks, which was carried out in 1917-1923 in Chernihiv region (Oblast), was primarily aimed at ensuring the political,

military, and economic needs of the new government, while the interests of the local population always remained in the background. In the period 1918-1920, Chernihiv province turned into a raw material and food base that provided the needs of the active Red Army and its substitute divisions. Any resistance of the population was brutally suppressed, and attempts of local Bolsheviks to revise the regulations of the layout remained unanswered. Only with the transition to the New Economic Policy, the situation in the province began to gradually change for the better.

To carry out food policy on the ground, the Soviet regime created a cumbersome and, as it turned out, ineffective apparatus of new authorities. The bodies that were supposed to implement the food policy, as a rule, used non-economic and repressive measures in their work. This was caused primarily by the content of the food policy of the Soviet government, in which commodity-money relations were given a secondary place, and private ownership of land should be eliminated in general. That is why, not finding understanding in the peasant environment, the representatives of the new government, at the initial stage of their activities, actively used in their work food troops, food militia, food tribunals, all kinds of "food months" and "food raids". The lack of quick and positive results forced the Bolshevik leadership to resort to reforming the food apparatus and its work methods. At the same time, repressive methods in work were not completely abandoned, but only partially softened. The tax company of 1922-1923, which took place under the conditions of the NEP, was better organized and positively perceived by the peasantry, that immediately reflected on its results. The Bolshevik leadership stated that the food tax was perceived by the main mass of the population much better than the food surplus appropriation, the distribution of the tax by individual districts and groups of payers corresponded to the capabilities of peasant households, was controlled and redistributed by local authorities according to benefits ('social facilities'). The "purge" of local food authorities, which was carried out in 1922-1923 and constant control from the center, led to a decrease in abuses in the field, but did not completely eradicate them. Among the problems that required an immediate solution, the local authorities raised the question of the ratio of the in-kind and monetary part of the food tax. Local food bodies did not have time to quickly rebuild and demanded from the center that the tax be collected in kind, as it was during the civil war. The central authorities demanded a quick transfer of the tax into a monetary equivalent, and the local apparatus of the financial institutions turned out to be unprepared (there were not enough specialists).

4 Conclusion

Evaluating the food policy of the Bolsheviks as a whole, it should be noted that despite significant miscalculations in the methods of its implementation, it brought the new government significant profits, which were later used during the implementation of Stalin's industrialization policy. At the same time, it is worth noting that these profits were received from the pockets of ordinary peasants, which in no way contributed to their enrichment. Thus, the food policy of the Bolsheviks in 1917-1923 once again proved that totalitarian regimes put the interests of the state above the needs of ordinary citizens.

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Primary Paper Section: A

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THE IMPACT OF INCLUSIVE PRACTICES ON ACADEMIC PERFORMANCE IN PRIMARY SCHOOL

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Abstract: The article discusses important parameters of the quality of inclusive education, among which the main place is occupied by high and stable academic performance in inclusive classes, both among children with special educational needs and among children without such needs. Also, special attention is paid to the rationale for the need and opportunities for the formation of social skills and self-esteem among students in inclusive classes. Based on the conceptual provisions of humanistic pedagogy, as well as considering the best practices of both Europe and North American inclusive schools, within the framework of the case study methodology, an outlining of promising areas for the development of inclusive pedagogical technologies was carried out to ensure high academic performance of all categories of students participating in the inclusive educational process .

Keywords: Inclusive education, Academic performance, Self-esteem, Diversity.

1 Introduction

Inclusion, thanks to the processes of adaptation of the educational environment, today has the opportunity to provide students with special educational needs with an adequate form of education. Significant changes have taken place not only in the legal status of this category of students, but a radical restructuring is taking place in the value orientations of education and upbringing of "special" children.

At present, we are witnessing the improvement of various national education systems in terms of convergence of special and general education systems, in "schools for all children", due to the official adoption of the idea of inclusive education by the Salamanca Declaration (1994), in the "inclusive school" as an educational institution, whose activities are aimed at introducing children with disabilities into the process of joint learning with healthy children in order to effectively socialize and rehabilitate them [18].

The relevance of the implementation of inclusive education in the development of the modern educational system is beyond doubt. Inclusive practice can be defined as a set of approaches and methods that provide all students with access to basic education [13]. Successful inclusion of children with special needs requires working together to ensure that all students feel welcome and valued and receive the right support to help them develop their talents and achieve their goals. When education is truly inclusive, it actually brings real benefits to all students, not just students with disabilities or special needs. But, t the same time, it should be noted that many difficulties are associated with the process of including children with developmental disabilities in mass educational institutions. One of the most significant and still unresolved problems is the problem of creating educational and methodological complexes for the successful inclusive education of all categories of children in general education preschool and school institutions. Linked elements regarding the same problem is the challenge of ensuring a consistently high level of academic achievement in inclusive classrooms.

In the research of scientists and social review project of regulators in EU, it has been established that, first of all, parents are interested in the development of inclusive education: 70% of parents of 'ordinary' children (those who do not have any special educational needs) do not object to joint (inclusive) education, because this will allow their children to become more tolerant, learn to help each other; however, they are convinced that teachers need to make special efforts for this. Also, 76% of parents of children with disabilities agree with the advantage of inclusive education, but understand that for this it is necessary to overcome a number of structural, social, regulatory, educational, and methodological barriers [14, 17].

At the same time, as broad practice 'in the places' show, there are contradictions in the modern educational practice of teaching children with disabilities and special needs in general education schools:

- The contradiction between the increase in the number of children with disabilities in general education schools and the lack of an integrative educational environment that ensures their joint education with healthy children, built on the principles of "unity in diversity" [7];
- The contradiction between the obsolete system of identifying and placing this category of children in educational institutions and the lack of the necessary psychological, medical, and pedagogical diagnostics for this, which would make it possible to implement in education an individual approach to a child with disabilities or special needs;
- The contradiction between the request of the parent community for the introduction of an inclusive approach to education and insufficient development of the conditions for its implementation;
- The contradiction between the need for special training of teachers to work with children with disabilities or special needs in a general education institution and the insufficient number of professional retraining and advanced training programs for teachers in this area.

These contradictions actualize the problem of studying the impact of inclusive practices on academic performance in elementary school.

2 Method

The theoretical basis of the study covers the conceptual provisions of humanistic pedagogy on the social value of the individual, on the need to include every child with disabilities in the educational space. Research methods involve the study of philosophical, sociological, psychological, pedagogical, and educational literature, logical and historical analysis of the problem under study, comparative analysis of approaches to teaching children with special educational needs, study and generalization of existing experience in the field of inclusive education. Some elements of the case study are used.

3 Results

Judging by studies carried out in the 1960s and 1970s in the United States, social and family circumstances have the greatest influence on the results of schooling there, which subsequently determines the level of income of a person. The effectiveness of the educational process is affected by the social background of students, which determines "the inequality in which children are placed by their home, their neighborhood, their environment" [2]. These studies gave rise to a discussion about the need for the inclusive education of children from different groups and social strata, including the disabled.

Inclusive education suggests that the diversity of needs of students with special needs and disabilities should be matched by a continuum of services, including an educational environment that is most favorable for them. This principle means the following: all children should be included from the very beginning in the educational and social life of the school in the area in which they live; the task of an inclusive school is to build a system that meets the needs of everyone; in inclusive schools, all children, not only those with disabilities, are provided with support that allows them to achieve success, feel safe, value being together in a team. Inclusive schools aim for many educational achievements different than those most often recognized as mainstream education. The goal of such a school is to give all students the opportunity for the most fulfilling

social life, the most active participation in the team, the local community, thereby ensuring the most complete interaction, helping each other as members of the community [8]. This value imperative obviously shows that all members of the school community and society are interconnected and that students not only interact with each other in the learning process, but also develop when they make joint decisions about managing processes in the classroom [9].

In this context, it is advisable to digress a little from the topic and turn to the experience of the United States in the field of combating the low academic performance of African American school students. Throughout America, their academic performance, on average, is significantly lower than that of their white peers. According to psychologists, the poor academic performance of African-American schoolchildren is largely due to their low self-esteem, imposed on them by the stereotypical attitude of others. Experiments have shown that even a small intervention aimed at increasing self-esteem can improve the performance of black children, reducing the achievement gap between black and white students by 40% [5]. In this regard, a stereotype of racial mental differences between white and black Americans has formed. This stereotype negatively affects students' self-esteem. In addition, deliberately low expectations give rise to fear of a possible fiasco, which, of course, increases the likelihood of failure. As a result, the number of losers among African Americans is growing like a snowball: it is a self-sustaining system. Likewise, overweight children are not expected to achieve serious sporting success, and, following the stereotypical attitude, an obese child does not expect much from himself and does not try to succeed.

Experiments conducted in provincial schools in the American Northeast have shown that a vicious circle can be broken. The work of psychologists was as follows. Teachers of one of the subjects were asked to distribute personalized envelopes with a questionnaire to the students at the lesson. Seventh grade students were randomly divided into control (119 people) and experimental (124 participants) groups. The questionnaire of the students of the experimental group was supposed to increase their self-esteem, while the questionnaire of the control group was not. In the questionnaires of the experimental group, it was necessary to tick off the highest value for the student (a list of values was offered, such as "relationships with friends", "success in art", etc.), and write why this choice was made. In the questionnaires of the control group, it was necessary to mark the lowest value and write why it might be important to someone else. A second experiment was carried out a year later with another group of seventh graders. In the second experiment, it was proposed to choose not one, but several highest (for the experimental group) and lowest (for control) values [5]. The questionnaire of the experimental group was a standard method for improving self-esteem. Surprisingly, this seemingly minimal intervention led to visible results. Almost all African-American students improved their academic performance.

This example, seemingly unrelated to inclusive education, contains an important experience: improving self-esteem and overcoming stereotypes leads to better academic performance. For those students of the inclusive class who do not have special educational needs, this is also important, since in a diverse environment they can more clearly see their talents and abilities, which will also have a positive effect on academic performance.

Thus, inclusion is a shared responsibility. Therefore, the creation of an inclusive environment should be the responsibility of all stakeholders. Schools that are on the path to introducing inclusion share responsibilities between general education teachers, special education teachers, consultants, foreign language teachers. True inclusion engages all adults in the school community, from parents of children with SEN and teachers to support staff (counselors, therapists, assistants, psychologists and social workers). At the same time, all participants in the educational process receive a number of advantages [4, 5, 11, 15, 21]:

- Students gain invaluable communication and interaction skills. Inclusive practices in schools make learning and academic achievement more accessible to all.
- Inclusive education allows students with SEN to fully express the full range of their educational opportunities, including learning and practicing important social skills. In addition, inclusion promotes a variety of friendships and communication, thereby enriching the lives of all students.
- According to statistics, students in inclusive schools miss less classes, have fewer behavioral problems and have higher self-esteem. When all students feel included and important members of the school community and society as a whole, they are more interested in their own education.

It seems necessary to build the educational process in the inclusive school, mandatory starting from the primary school, on the basis of the principle of pedagogical optimism. The principle of pedagogical optimism is associated with a high level of scientific and practical knowledge about the potential of persons with special educational needs; modern pedagogical opportunities for habilitation and rehabilitation of children and adults with developmental disabilities, the right of every person, regardless of his/her characteristics and organizational capabilities of life, to be included in the educational process [12]. Children with special educational needs tend to learn more slowly, but they can learn and achieve high results. This principle is based on the idea of L.S. Vygotsky about the zone of proximal development (ZPD) and rejects the "ceiling" theory [20]. Modern special pedagogy claims that there are no unteachable children. A person with special educational needs in accordance with this principle is a successfully developing and socially valuable person, if society wants it or if it can provide the necessary conditions for this [20]. Thus, inclusive education is not only justified, but also useful for providing diversity, which is now considered among the most important means for self-realization, development, and continuous learning.

In one of the most innovative inclusive schools in Germany, a comprehensive project of experimental work was implemented. The following pedagogical conditions for teaching children by means of inclusive education have been implemented: adaptive educational environment, psychological, medical and pedagogical support for a child with disabilities, dynamic changes in organizational forms and methods of teaching children with disabilities, based on continuous feedback, scientific and methodological (educational) support for teachers based on training cycles according to Kolb's method.

The timely implemented psychological and pedagogical correction of learning difficulties has improved the qualitative performance of students in inclusive classes in mathematics by 4% and in English classes - by 6%. In children with disabilities, the performance in English improved by 4%, in literature by 5%, in mathematics - by 1%. Indicators of physical development, neuropsychic and somatic health of school students improved: the number of schoolchildren with high and above average physical development has increased; the number of students registered with the dispensary decreased from 301 to 67 children [3]. The attitude of participants in the educational process towards inclusion has changed. The number of children who agreed with the statement "Friends help me learn" increased from 62% to 77%. After the project completion, there are 2 times more teachers who believe that the teaching staff works in cooperation mode. The number of parents who agree with the statement that teachers try to make the lessons understandable to everyone increased from 18% to 71% [3].

Also, a regional project to strengthen social connections and improve emotional intelligence in the inclusive classroom was implemented in the Canadian province of Alberta. An analysis of personalized quantitative assessments of the achievement of the planned results (standard) of healthy children and students with disabilities did not reveal any significant changes in their academic performance during the period of participation in the regional project. The subject results of students with disabilities in the main academic disciplines appeared to be at a satisfactory

level. Teachers noted that in some cases, a temporary decrease in the progress of students (both healthy children and students with disabilities) is associated with traditional reasons (absences due to illness, family circumstances, lack of a sense of responsibility, etc.), and not due to the introduction of inclusive education [10]. Describing the dynamics of individual educational achievements, 99% of teachers indicated that "children with disabilities improve basic school skills and abilities"; 58% of the teachers surveyed noted that in the context of inclusive practice, children with disabilities learn the material better than with individual learning, and, very importantly, 21% of school teachers testify that after a year and a half of participation in the regional project to introduce inclusive education, "normally developing students have become learn better" [10]. The authors of the project pay special attention to the competence of teachers and note that teachers who have generally accepted the ideas of educational inclusion have a chance to become such, provided they master adequate pedagogical tools, which should not only correspond to the spirit (values, principles) of inclusive education, but also allow them to successfully solve specific problems of joint (inclusive) education of children with complicated development and healthy children. Only in this case, it will be possible not only to reveal the absence of negative effects of this innovative educational practice (children did not begin to study worse), but also, as evidenced by the findings of researchers, to note positive effects in the behavior of children, in the level of their educational motivation, and in progress, and in the development of the personality of students [8, 18].

Obviously, to ensure the sustainability of the positive results obtained, constant monitoring is necessary based on specially developed KPIs, which involves monitoring the effectiveness of the educational process in the context of inclusive practice in terms of some parameters of the processes studied in it:

- The learning process (dynamics of academic performance of all groups of children),
- The process of socialization of students (social well-being, psychological comfort and safety in the classroom and the educational environment as a whole),
- Attitudes towards the practice of inclusive education on the part of teachers, administration, parents, and children themselves.

The task of inclusive education is the creation of appropriate pedagogical conditions for children with disabilities and special needs, which requires reliable approaches and criteria that allow for the correct assessment of learning outcomes, taking into account an individual approach. Many variants of pathologies in children and a significant variation in the level of educational abilities put forward the requirement for a differentiated assessment, the methodology of which has a different essence, which does not fully resemble the marking of healthy children and the rules of a mass school.

With regard to the problem of academic results in children with disabilities, the theoretical provisions of the above mentioned famous pedagogical scientists L.S. Vygotsky about absolute and relative success in learning are rational. Absolute success as a traditional assessment of school results is built on the basis of the knowledge gained by the child at a particular moment (for example, after studying a particular topic or the entire course). Absolute success allows ranking students of the same class (or parallel) and to determine a more or less high position for each student, depending on his knowledge of the school curriculum. Relative success shows the individual progress of each child in comparison with his previous results, but not with the results of classmates. When comparing the absolute and relative success in one child (healthy or with psychophysical disabilities), a paradoxical situation is possible: children with high academic performance may demonstrate low relative success, and poorly performing children - high relative results. This fact was also studied and described by Vygotsky. He wrote that a well-performing and successful child in school may make little progress in further mental development and not exceed his previous educational achievements. Other students who are

poorly performing and do not show high academic results (an unsatisfactory picture of absolute success) can demonstrate good relative success: reading speed has increased, the number of errors in dictation has decreased, more correctly solved tasks in mathematics, etc. [16]. When discussing the issue of the quality of inclusive education, it is possible to extrapolate the views of L.S. Vygotsky on modern theory and practice of inclusive education and learning. Information about the special educational needs of students and the use of the pedagogical category "relative success" allow drawing reliable conclusions about the actual educational results of children with disabilities (not necessarily in comparison with the results of other, healthy children) and give a reliable assessment of the quality of inclusion at school in the areas of organization and didactics of education.

Based on all the criteria mentioned in the article, that make up a high-quality inclusive education, one can point out the multidimensionality and systemic nature of this pedagogical phenomenon. Inclusive education is a specially organized interaction of teachers with ordinary (healthy) children and children with disabilities in the space of a general education institution, which allows, firstly, to overcome contradictions in the educational practice of teaching children with disabilities, and secondly, to implement the basic principle of inclusive education as a principle of joint education of ordinary children and children with disabilities, thirdly, to ensure the use of special organizational and pedagogical conditions for the education of children with disabilities or SEN. Inclusive education, unlike integrative education, adapts the educational environment to the individual characteristics of the child, and not vice versa. Moreover, it implies the availability of education for all categories of children with disabilities, uses the educational resource of adult-children and children's joint activities in heterogeneous groups, for which the teacher builds special actions and not just allowing a child with a disability/SEN to be with healthy children in classroom premises.

The system of inclusive education itself is an effective mechanism for the development of an inclusive society, i.e., by developing an inclusive education system, we contribute to the development of an inclusive society - a society for all / a society for everyone. This is the key value of inclusive education.

In conclusion, it should be emphasized that the assessment of the success of inclusive education should be based not only on the analysis of the individual components of this process, but also on its final result, the high quality of which is possible only if inclusive education is seen as a continuous process in which, starting from the very first stage of life of a person with disabilities /SEN - infancy and early childhood - and throughout the life vertical, each new life and educational stage is built on a solid educational foundation of the previous stage.

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Primary Paper Section: A

Secondary Paper Section: AM

THE SPECIFICS OF THE PRESERVATION AND DEVELOPMENT OF STAGE AND CHOREOGRAPHIC FORMS IN THE ENVIRONMENT OF THE UKRAINIAN DIASPORA IN CANADA IN THE LATE 20TH AND EARLY 21ST CENTURIES

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Abstract: The article examines the specifics of the preservation and development of stage and choreographic forms in the environment of the Ukrainian diaspora in Canada in the late 20th and early 21st centuries. The creativity of the well-known Ukrainian choreographic group of Canada "Barvinok", led by ballet master Fedor Danylyak, the organization of rehearsal processes, the peculiarities of the choreographic school, and touring activities are analyzed. The works of Andrii Nagachevskyi, who is engaged in the study of Ukrainian dance in Canada at the modern stage, are highlighted. Using the example of the creative activity of the Canadian Ukrainian Drama Theater "Zagrava", led by J. Terletsky, we analyze the repertoire poster and the traditions of the productions of literary and dramatic works, which are characteristic of the numerous productions of amateur theater groups of the diaspora. Avant-garde Ukrainian Theater (AUT) of M.-R. Stekh (1980s of 20th century) is viewed as a singularly radical attempt to gain a foothold in the Ukrainian diaspora by means of stage adaptations of new original texts, music, drama, and poetry.

Keywords: Diaspora, National traditions, Avant-garde art, Stage art, Ukrainian dance, Choreography, Choreographic composition.

1 Introduction

The Ukrainian diaspora of the late 20th and early 21st centuries helped preserve the ethnic identity of Ukrainians abroad. Today, the art of the diaspora is a component of Ukrainian national culture, covering almost all fields of art.

Ukrainians living outside the country continue to support, preserve, and develop their own cultural self-awareness. Especially in the field of artistic activity, the creativity of our compatriots proves that the talented and devoted Ukrainian people are not only competitive under other conditions, but also have a place in the international community. Therefore, there is an urgent need to return unknown and forgotten names of artists who established Ukrainian culture in a foreign environment. Among them, there are world-famous ballet masters, art theorists, actors, and directors.

In a certain historical period, in particular, after the Second World War, the forced emigration of the Ukrainian intelligentsia, accompanied by the Soviet totalitarian regime, led to the relocation of numerous figures of culture, art, and literature to other continents, where they not only became residents of other countries, but also preserved customs and traditions of their ancestors and passed it all on to their next generations.

After 1992, when Ukraine became an independent state, the Ukrainian diaspora began to invite artists to their centers in order to preserve and support Ukrainian culture.
In the second half of the 20th century, Ukrainian folk dance and Ukrainian theater developed, which were characterized by a high level of performance skills, particularly in the area of choreography, as well as in new paradigms of folk dance and stage art. The synthesis of traditional forms of dance and stage art of ethnographic regions helps to create masterpieces of the production, allowing choreographers and theatergoers to delve deeply into their historical ancestral roots and find interesting ideas for their own creativity. "During the 20th century, Ukrainian culture developed in difficult conditions, its progress was mostly contradictory. Despite this, the achievements of Ukrainian artists are significant and original" [19, p. 462].

2 Method

To study the specifics of the preservation and development of stage and choreographic forms in the environment of the Ukrainian diaspora in Canada at the end of the 20th and the beginning of the 21st centuries, weighty works of art critics and theoreticians-practitioners, which help the world learn about the value of Ukrainian art, were employed.

In her works, art critic Olha Kvetsko explores the choreographic culture of the Boiks of Prykarpattia. Famous ballet masters of the Carpathian region, who began to develop Ukrainian dance in Ukraine, migrated to Canada and began to actively develop dance art abroad. Among them, there is the famous choreographer Fedir Danylyak, who is currently the artistic director of the School of Ukrainian Dance "Barvinok" (Canada) [4, p. 112-115].

In her dissertation study "Choreographic culture of Boyki in Prykarpattia at the end of the 20th - beginning of the 21st centuries", art critic Olga Kvetsko points out that choreographer Fedir Danylyak is the director of the Boyki dance "Lyubaska", which today is a model of Ukrainian folk choreography [5, p. 102–105].

Art critic Nadiia Kukuruza works on the development of stage art abroad, actively researching the stages of formation of theater art of the diaspora, highlighting the work of famous artists and the development of stage forms in the environment of the Ukrainian diaspora in Canada [6, 7, 8, 9].

The works of art critic Andrii Nagachevsky today are the only property of the Ukrainian diaspora, which reveal the history and development of all Ukrainian dance abroad. So in the monograph "Household dances of Canadian Ukrainians", based on the description and analysis of family dances, the author explores the cultural origins of Ukrainians in Canada, intertwined with their ties to their ancestral homeland and new environment. The book is of interest to students, scientists, and anyone interested in culture and cultural relations, ethnology, and dance [11].

In his monograph "Ukrainian dance from the village to the stage", A. Nagachevsky indicates that Ukrainian dance is very popular in Canada. Today, all choreographic groups mostly work on stage, but folk dance, which is the source of today's stage forms, originated at a performance in a Ukrainian village many years ago. The main purpose of the book is to highlight the traditional dances of the Ukrainian village [12].

The monograph "Ukrainian dance: a cross-cultural approach" by A. Nagachevsky describes that the popularity of Ukrainian dance is very stable and is performed in many cultural contexts. Most Ukrainian live dances are performed by peasants in traditional rural settings for entertainment and ceremonies. Light Ukrainian dances are performed more consciously, as part of the living heritage. In this book, the author introduces readers to subgroups that include folk dance, entertainment, educational, and stage dance [13].

Yosyf Terletskyi's article "Pains of our theater history" describes the last 20 years of work of the "Zagrava" theater. His reflections "contain an assessment of dramatic moments that often arise in theater groups at the breaks in their history, when there is a change of generations" [13, p. 15].
The study of the specifics of the preservation and development of stage-choreographic forms in the environment of the Ukrainian diaspora in Canada at the end of the 20th - beginning of the 21st centuries made it possible to expand the horizons of dance and stage art and add new personalities who continue to preserve, revive, and develop the stage-choreography art today.

3 Results

In the context of the development of Ukrainian choreography in Canada, we can claim new directions of development,

achievements, and successes, characterizing them at the current stage as Canadian-Ukrainian, because the language of dance is international and this, in a certain way, is a much easier way to adapt choreographic creativity in any corner of the world On the other hand, the importance of the Word in theatrical art, in particular Ukrainian, cannot have a wide range of connoisseurs and is in demand only for the Ukrainian diaspora.

Therefore, the need to understand the specifics of the preservation and development of stage and choreographic forms in the environment of the Ukrainian diaspora of Canada in the late 20th and early 21st centuries, the practical use, preservation and transmission of the national heritage to solve the current cultural issues of the modern Ukrainian diaspora, on the one hand, and insufficient coverage of the problem on the other hand, determine the choice of this topic.

Artistic director of AUT M.-R. Stekh, who successfully continued further activities in the field of literary studies, as well as his predecessors who sought to create a Ukrainian theater in the diaspora (such as, for example, Y. Hirnyak and O. Dobrovolska, V. Blavatsky after arriving on the American continent) after decades, again states that in the modern conditions of the emigrant community, even a half-fledged theater has no real chances.

Analysis and systematization of the periods of development of Ukrainian stage/theatrical art on the territory of the American continent in the 2nd half of the 20th century, in particular among the artists and writers of the Canadian diaspora, the period of the end of the 20th - beginning of the 21st century deserves attention; in it, we will single out the work of the collectives "Zagrava" and AUT - the theater of tradition and the theater of radical views, different in existence and in time, and the attitude towards the preservation or rejection of creative assets characteristic of traditional theaters of the diaspora, the polarity of one's own views on the role and purpose of theatrical art in general.

It should be noted that both Yosyp Terletskyi ("Zagrava") and Robert-Marko Stech (AUT) - ethnic Ukrainians from Poland - moved to Canada almost at the same time (1982).

Yosyp Terletskyi (born in 1955) was born in Mlynary (East Prussia), a certified "director of drama group". A meeting in 1983 with the administrator and head of the Ukrainian Drama Ensemble "Zagrava" Volodymyr Dovhanyuk (an actor in Galician theater companies before World War II, the founder of the theater) determined the further creative path of the artist, where he went through the path of an actor, a director, a member of the theater board and, finally, today heads the team.

As an actor, Terletsky skillfully masters the art of the entertainer, which involves mastering improvisation, performing roles in sketches on the subject of the life of Ukrainians in the diaspora. His repertoire includes roles in iconic plays by classical Ukrainian playwrights and contemporary Ukrainian playwrights. As a team leader, he managed to establish creative ties with Ukrainian theater artists: People's Artist of Ukraine Fedir Strygun became the artistic director of A. Krym's play "Illegal". Even at the dawn of Ukraine's independence, "Zagrava" toured Ukraine with the performances "Dance of Freedom" by B. Budny and "Sins of Youth", and its director was awarded the honorary title of "Honored Worker of Culture of Ukraine".

Forming the collective's repertoire poster in the direction of entertainment genres, the collective immediately responded to the events of Russian aggression by staging the poetic and musical performance "Hetman Mazepa" based on the poem by H. Zaporozhchenko, which is performed for charity in support of the Armed Forces of Ukraine.

A significant contribution of Y. Terletskyi to scientific documentary theater studies is the publication of a universal book on the history of the formation and activity of "Zagrava" together with the art critic V. Haydabur [1]. The book included

carefully collected materials about the theater from the first day of its foundation.

In the context of the study of avant-garde theatrical experimentation, the scientific work of the cultural expert, theorist of criticism S. Matvienko deserves attention, in which she notes that "the art of the avant-garde is ideological, because it pursues certain goals (changes of art, society, consciousness"). Defining the generalized concept of avant-garde in more detail, she considers the avant-garde as a "gesture of protest within the limits of modernism", and at the same time - the most characteristic gesture..." [10].

Analyzing the short-term attempts to develop Ukrainian modern/avant-garde stage art among the Ukrainian diaspora on the American continent at the end of the 20th century, we can single out several iconic figures, including the writer and poet Bohdan Boychuk (New York Poets Group, 1958–1999). As an active researcher and connoisseur of modern world theatrical processes, he was interested in realizing his own drama on stage and thus opening the Ukrainian theater for experimental creativity [9, pp. 37–42], as well as a well-known Ukrainian Canadian literary critic, writer, theater researcher, manager of scientific and encyclopedic projects, author and presenter of the series "With the Eyes of Culture" Marko-Robert Stech.

He started his creative activity as a playwright and director in the 2nd grade. In the 1980s, founded the Avant-Garde Ukrainian Theater (AUT) group, which he led for almost five years.

Stech was associated with this theater not only as a director, but also as a playwright. His first literary attempt is the play "Duel". In the theater, he staged his own compositions (dramas, staging-montages), as well as plays based on the works of Becket, Mrožek, Kostecky.

M. Stech positions the attempt to create AUT as an attempt to "declare self in these new circumstances, which I did not always perceive at the time without conflicts and feelings of inferiority. It was a form of protest and, more importantly, an attempt to integrate into a new community for me. And so it happened, because after the first performance, in which only emigrants from Poland, such as myself, took part, the group was immediately joined by several young Ukrainians from Toronto, who became the main core of the future AUT and with whom I later tried to publish as well magazine: four issues of the magazine "Terminus" [17].

Ukrainian literary critic L. Zaleska-Onyshkevych expressed her opinion about youth independent formation as "an interesting and joyful phenomenon in the diaspora... manifested in literature, journalism, theater, music and radio broadcasting, and art" [16].

Subsequently, Marko-Robert Stech successfully continued further activities in the field of literary studies, but he also, like his predecessors, who sought to create a Ukrainian theater in the diaspora (such as, for example, J. Hirniak and O. Dobrovolska after arriving on the American continent), after decades later states, that "there are no real opportunities for even a half-full existence of the theater in the modern conditions of the diaspora community" [16].

This is confirmed by Y. Nazyrevych's post about the creative individuality of AUT, where he not only tries to analyze one of the productions, but also describes the conditions in which the newly formed team had to work.

Young enthusiasts did not have premises for rehearsals, instead they worked in private residences, they tried to subordinate the team to organizations with better funding, they convinced them to turn towards the traditional repertoire to which the average Ukrainian audience in the diaspora is accustomed, to abandon incomprehensible innovation. The Institute of St. Volodymyr in Toronto became a signpost for AUT.

The first performance-montage of the AUTU "Evening in Prison" received favorable reviews, but was also criticized. The most common among the critical comments (according to the author's research, this is a problem of numerous Ukrainian-language productions in the diaspora) is the speaking stage culture: the performers "possessed insufficient mastery of the Ukrainian language..." and that "people are not used to such events, which in many cases became incomprehensible to them" [15].

Congratulating the creativity of M. Stech's theater, the author emphasized that the theater should make attempts to get out of ethnographic and everyday provincialism, teach the audience to "think and develop the intellect", and that classical drama should appear in new forms [15].

The repertoire of the theater also included the performances "Duel" by M. Stech, which the team represented, in particular, at Harvard University, the musical and theater production "On the death of the poet. In memory of Vasyl Stus", "In the middle of the sea" by Mrozek, "Catastrophe" (dedicated to the Shot Renaissance and the artists destroyed by the Soviet totalitarian system; was represented in New York at the celebration of the 100th anniversary of the birth of Les Kurbas), "Waiting for Godot. Krapp's last tape" by Beckett, "Nativity scene - torn wings" (edited by M. Bily). Mrozhek's play "Emigrants" (director Yuriy Onukh) was dedicated to the centenary of the resettlement of Ukrainians to Canada.

The dramaturgy was translated by R. Vashchuk, I. Stech, Yu. Tarnavskyi. The core of the group consisted of up to 30 participants, among whom there were A. Ivakhiv, R. Gurko, H. Gula, I. Naberezhny, S. Berezovska, T. Chorna, B. Vuytsyk, O. Ganushevska, and others.

The writer, pedagogue, public figure S. Gurko left a memory of the performance dedicated to V. Stus, thanks to which we can discover the means of stage embodiment. The textual basis and direction ("deeply thought out" stage pantomime) was embodied by Marko Stech on the basis of the musical composition (two out of three parts were performed) by A. Ivakhov "Requiem - for the death of the Poet", which was based on Stus's poetry "And the house floated, floated by the river..." A small student orchestra and a girls' choir were involved in the performance [3].

The avant-garde direction of Mark-Robert Stech's theater became, first of all, a radical "gesture of protest" as a direction in the development of modern Ukrainian art, although its participants pursued a different goal.

It was one of the first attempts to unite creative youth to make a statement on the American continent by means of performing arts, as it combines all aspects of art in general: writers, musicians, artists, etc. (let us note that among the main associates of AUT, there were no professional theater artists, they performed rather advisory functions).

Many members of the team chose their own creative path, not related to stage/theatre art. For example, the musical group "Limestone under the bare sky" in 1986 first announced itself at a creative evening (organized by A. Ivakhiv and M. Stech) dedicated to V. Stus, V. Havel, and I. Yirous, and later the group became a participant in the festival "Chervona Ruta-91", performed with members of the band "Hadyukin Brothers" on the stage of the Lviv Youth Theater.

In contrast to stage art, Ukrainian dance is widely known abroad. With the diasporas in all corners of the world, centers are created that are engaged in the popularization of Ukrainian dance. Since the late 1940s, the steady growth of participation in Ukrainian folk and stage dances in Canada has led to the organization of numerous dance schools and ensembles, some of which have reached a high technical and artistic level of performance. Most of the collectives took Ukrainian folk dance, its stage arrangements and original choreography as the basis for its existence and development. The results were mostly positive, but numerous problems arose due to limited knowledge and

understanding of the form of dance art in general and the specifics of Ukrainian folk dance in particular, confusion regarding the nomenclature of the dance step, the correct and appropriate costuming and melodic accompaniment. Regional identity and characteristics of dance are among the most obvious problem areas.

Among the famous ballet masters working in Canada, there is Fedir Danylyak, who was born on September 2, 1955 in the village of Pukiv, Rohatyn district, Ivano-Frankivsk region. In 1972, he graduated from Pukiv secondary school. He became interested in choreographic art since childhood, but he began to professionally study a profession related to dance at the Kalush School of Culture (today the Vocational College of Culture and Arts (Kalush)) in 1972-1976.

After graduating from school, Fedir Danylyak worked in the Hutsul Song and Dance Ensemble at the Ivano-Frankivsk Regional Philharmonic (today the Ivano-Frankivsk National Academic Hutsul Song and Dance Ensemble "Hutsuliya"). From 1978 to 1982, he studied at the Kyiv Institute of Culture named after O. Korniychuk (now the Kyiv National University of Culture and Arts). After graduating from the institute, the young specialist was sent to work at the Kalush School of Culture, where he worked from 1982 to 1995.

During the time of Ukraine's independence, the subject "Ukrainian dance" was introduced into the curricula of cultural and educational institutions. This became an impetus for the development of Ukrainian folk dance in Prykarpattia, since there was a lot of folklore material and it was used only in dance groups.

Fedir Danylyak began fruitful work on the study of the discipline "Ukrainian dance", the study of dances of the ethnographic groups of the Carpathians, later as a separate part of the discipline's curriculum. Therefore, the repertoire of the folk dance ensemble "Merezhivo", of which he was the director at that time, is complemented by interesting choreographic works: "Prykarpatsky styvatkovy", Boykiv dance "Lyubaska", choreographic suite "Wreath of Unity", etc.

In 1996, Fedor Danylyak was invited to the position of choreographer at the "Arkan" Dance Academy in Toronto, Canada. He was fond of Ukrainian dance art and created many interesting dance works. The decisive thing was that his art was highly appreciated. In 1997, he headed the school of Ukrainian dance "Barvinok" at the Church of the Assumption in Mississauga (Ontario, Canada).

The Ukrainian dance school "Barvinok" was founded in 1969. It began its work in the basement of the Ukrainian Marian Church in Mississauga. Every year, the number of participants increases, as does the professional skill of the dancers. During 20 years of work, Fedir Danylyak created more than 200 works. These are ethno-patriotic dance performances, folk dances of different ethnic regions of Ukraine. In his dances, the choreographer preserves Ukrainian traditions, transfers his knowledge to Ukrainian students abroad who are proud and love Ukraine. This plays an important role in the further development of Ukrainian dance culture abroad, helps to preserve customs and traditions, and to remember one's origins.

His team consists of 18 assistants, whom he trained himself. One of them is his son Taras Danylyak. Today, the Ukrainian dance school "Barvinok" has more than 400 students aged from 5 to 30 years. The school is dedicated to teaching Ukrainian dance. The curriculum of the school points to the great works of choreographers, especially Fedor Danylyak, who devoted his life to Ukrainian choreography. The school's repertoire includes choreographic productions that demonstrate the character and manner of performance of different regions of Ukraine: "Prayer for Ukraine", Ukrainian dance "Hopak", "Carpathian Mosaic", Boykiv dance "Lyubaska", "Polish Polka", Transcarpathian dance "Tropotyanka", "Opil Polka", "Volynyanka", and many others [5, pp. 104-105].

Among the famous ethnographers and theoreticians of the study of Ukrainian dance abroad, one can mention Andriy Nagachevskyi, who is the director of the Peter and Doris Kulyv Center of Ukrainian and Canadian Folklore at the University of Alberta, Doctor of Science.

A. Nagachevsky works as a professor at the Department of Modern Languages and Cultural Studies at the University of Alberta (Edmonton, Canada). He also holds the position of the Department of Ukrainian Culture and Ethnography named after Hutsuliakiv and heads the newly created Canadian Center of Ukrainian Culture and Ethnography. He actively participated in Ukrainian dance ensembles "Cheremosh" and "Shumka" (Edmonton), "Festival Ensemble" (Toronto), "Yevshan" (Saskatoon).

Nagachevsky defended his thesis "Dance culture of Ukrainians of Alberta and Saskatchewan, Canada" in Canada (Edmonton, Alberta) in 1997. This dissertation collects a large amount of monographic literature on folk dances by choreographers of Ukraine, Canada, and Western Europe. There are many photos of Ukrainians in Canada during the National Holiday.

Nagachevsky, in the process of writing a dissertation, received a rare opportunity to work in the best libraries abroad and in Ukraine. A famous Ukrainian choreographer-balletmaster, Ukrainian and Canadian musicologists and linguists came to his aid. During the 20th century, he got acquainted with numerous scientific and special documents that appeared in Ukrainian and foreign book collections. But he was primarily interested in the past and present dances of Bukovyna and Halychyna, where the first immigrants from Ukraine migrated. The most difficult thing for young researchers is to develop a scientific term.

Andrii Nagachevskyi visited Ukraine in 1980, 1992, and 1995 to study Ukrainian dance. This study is described in the master's thesis "Family dances among Canadian Ukrainians", and the scientific leader is Dr. Bohdan Medvidsky from the University of Alberta (Canada) [9].

Based on the description and analysis of family dances, Andrii Nagachevskyi explores the cultural origins of Ukrainians in Canada and their connection with their ancestral homeland and new environment. A book is for students, scholars and anyone interested in culture and cultural relations, ethnology and dance. "Family Dances of Ukrainians of Canada" was started in 2001 by the Ministry of Culture and Ethnography of Ukraine by Hutsuliakov from the University of Alberta (Edmonton, Canada), the Institute of Ethnology of the National Academy of Sciences of Ukraine (Lviv) and the RODOVID publishing house (Kyiv). This is the first book of the "Ukrainian Ethnography and Culture" series.

In 2008, with the support of the Hutsuliak Department of Ukrainian Culture and Ethnography at the Kule Center for Ukrainian and Canadian Folklore at the University of Alberta, Andrii Nagachevsky's work "Ukrainian Dance from Village to Stage" was published. Namely this work describes the fact that Ukrainian dance is extremely popular in Canada. Folk stage dances today take spectacular forms on stage, but Ukrainian dances take their roots from the life of Ukrainian villages since the past. The purpose of this book is to investigate traditional dance in a Ukrainian village [10].

The monograph "Ukrainian Dance: A Cross-Cultural Approach" was published in 2012 (Jefferson, N.C.: McFarland & Co.) [11]. The popularity of Ukrainian dance is very stable and it is performed in many cultural contexts. This work explores the complex world of this folk dance, paying particular attention to the difference between live dance (which requires full focus on the present) and reflex dance (dance which is clearly connected to the past). Most Ukrainian live dances are performed by peasants in traditional rural settings for entertainment and ceremonies. Light Ukrainian dances are performed more consciously as part of living heritage. The monograph describes Ukrainian dance by subgroups, including folk national dance, recreational and educational dance, as well as stage dance.

4 Conclusion

So, in the history of the development of Ukrainian stage art on the territory of Canada, one can single out two iconic collectives: the "Zagrava" theater and the AUT, which are completely opposite in terms of artistic direction and ideology.

Thanks to the organizational talents and dedication of the director of the Ukrainian Drama Theater "Zagrava" Yosyp Terletskyi to the theatrical business, the theater, albeit with interruptions, continues its long-standing history to this day, despite permanent difficulties (lack of premises, living conditions of team members, financing of productions, etc.), as it happened with the collectives of professional theater artists Y. Hirnyak, V. Blavatsky, and others after the 2nd World War, due to which their collectives, like many others, stopped their short-lived activities. Analyzing the last of the productions ("Hetman Mazepa") of the "Zagrava" theater, we can say that the collective works on the basis of amateurism.

We should also note that the attempts of radical changes in the theatrical art of the diaspora were tried to be embodied not so much by theater artists but rather by representatives of related creative professions - writers, musicians, choreographers, artists, for whom the theater as a syncretic art became a unifying factor for declaration of own views, opinions and beliefs regarding the prospects for the development of art and literature in general on the stage. But the most important thing is that they embodied their own creative assets on stage.

Therefore, in the history of the Ukrainian stage/theatrical art of the diaspora, we regard the Avant-Garde Ukrainian Theater under Mark-Robert Stekh as another of the short-lived attempts to initiate radical changes in Ukrainian literature and art.

Most of the migrant artists chose the path to the restoration and development of Ukrainian choreographic art abroad, which is highly appreciated by the diaspora in all corners of the world. The well-known productions of Fedor Danylyak are a symbol of love for Ukraine, which instills patriotism and high values in each subsequent generation of Ukrainians in Canada, and shapes Ukrainian identity.

The works of Andrii Nagachevsky form a scientific basis for the study of Ukrainian dance abroad, help to expand one's horizons and find the primary source for stage forms of choreographic art.

Centers of the Ukrainian diaspora around the world restore not only the customs and traditions of Ukrainian people, but also leave to the next generations a part of their past that is closely connected with history, everyday life, culture, and art. Ukrainian dance is danced by choreographic groups in different parts of the world. Namely the Ukrainian diaspora plays an important role in the development, preservation, and popularization of national choreographic art abroad.

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Primary Paper Section: A

Secondary Paper Section: AB, AL

FORMATION OF THE SOFT SKILLS AMONG STUDENTS OF HIGHER EDUCATION

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Abstract: The article examines the modern specifics of the formation of soft skills among students of higher education, taking into account the transformation of approaches to the training of future specialists and the objective changes in the social and economic environment that occur under the influence of globalization and impose new requirements on professional activity. It was determined that soft skills do not have a universal interpretation due to their significant differentiation depending on the field of professional training. A system of soft skills for higher education graduates has been formed, which is the most in-demand in the modern labour market for higher education graduates. It is proposed to consider soft skills as critical competencies of future specialists in the process of their professional training.

Keywords: Soft skills, Professional competence, Professional training of specialists, Higher education.

1 Introduction

In modern conditions, characterized by transformational processes in the general dynamics of the development of society and the globalization of the system of socio-economic relations, new requirements appear for the personality of the student of higher education. Today, to meet all the requirements posed by technological progress, a modern qualified specialist needs the skills and abilities necessary for effective work in new realities, which include perfect mastery of digital technologies, as well as modern technologies of virtual communications, etc. Thus, the qualified specialist needs something that allows him to function in the conditions of dynamic changes in the external environment and constructively solve the problems of professional activity. Therefore, for modern employee to meet the challenges of contemporary society and the technological complications of professional activity, it is necessary to have a high level of stress resistance to ensure the effective performance of all functions entrusted to them.

As practice shows, the key resource of professional stress resistance in such conditions for modern professionals is soft skills, that is, a system of "soft skills" in managing people and implementing professional competencies. At the same time, soft skills help to successfully interact and communicate with other employees, and they are also necessary for effective professional activity and career growth. Such skills include: communicative aspects; teamwork skills; the ability to effectively apply time management; flexibility; adaptability and ability to change; leadership qualities; personal qualities; etc. In the context of the activities of modern specialists, this list can be supplemented with such necessary qualities as self-organization skills, the ability to effectively work with information, the ability to solve complex professional tasks, flexibility, etc. Therefore, it can be argued that there is no permanent list and perfect classification of soft skills in practice, since different types of skills will be prioritized for different types of professional activities. That is why the study of the principles of the formation of soft skills among future specialists at the stage of obtaining higher education, when they are acquiring basic professional skills and knowledge, is of particular relevance at present.

2 Literature Review

The issue of studying the mechanism and principles of soft skills formation in future specialists at the stage of obtaining higher education is not new to modern scientific research. It is worth noting the thorough studies in this direction, which are presented in the works of such scientists as J. Heckman [7], P. Kyllonen [11], T. Mishustina [12], O. Pavelko [15], S. Vasanthakumari [21], S. Voloshyna [22], and others.

In addition, it is worth noting a number of studies on the professional training of specialists based on the formation of the soft skills system in higher education graduates in the process of practical implementation of professional educational programs by higher education institutions based on the application of modern information and digital technologies as the basic foundation of future professional activity. In particular, an important theoretical substantiation of the soft skills formation system based on the application of the competence approach was carried out in the studies of J. Andrews [1], T. Beridze [3], O. Hlazunova [8], K. Moore [13], N. Semenyshena [16], K. Tang [18], I. Tkachuk [19], I. Yakoviyk [26], A. Zhang [28], and others.

It is also necessary to note the significant practical contribution to the study of the principles of soft skills formation in institutions of higher education, which was revealed in the works of I. Balaniuk [2], Y. Chaliuk [5], O. Ermakov [6], K. Kostetska [10], S. Nakhod [14], A. Tiurina [20], O. Vorobyova [23], L. Zelenska [27], and others.

At the same time, it should be noted that in the conditions of digital transformations of the system of socio-economic relations, there is an objective need to expand research on the specifics of the formation of soft skills among students of higher education in the educational process precisely in the conditions of intensive use of information technologies in the learning process.

3 Materials and Methods

Researching the problems of professional identity as a central link to professional realization, it should be noted that its structure is made up of three key components:

- Individual (professional self-identification, or self-concept);
- Instrumental (professional knowledge, skills, abilities);
- Social (conformity to the social order).

The coincidence of these components is defined as professional identity, and the discrepancy is defined as a kind of professional marginalism. Thus, the realization of a professional must be considered not only as self-realization that occurs within the subject and in the interests of the subject, the degree of which is assessed by the subject himself from the position of how suitable this profession is for him, but also as realization directed from the outside, carried out in the form of social professional actions, through which society already assesses how suitable this professional is for it, to what extent he meets its interests and requests [19].

Modern methods of research into the essence of definitions of the term "soft skills" show that currently there is no single and unified concept, but in one way or another, the terms are interconnected with each other. All these definitions are united by a set of activity and communicative approaches in the implementation of communicative and personal competencies related to non-professional skills that increase the effectiveness of the activities of future specialists. Taking into account the processes of integration and the possibilities of soft skills, they can be divided into four typical groups:

1. Basic communication skills. This group includes the ability to persuade, argue, work in a team, negotiate, conduct business correspondence, make presentations, etc.
2. Self-management: to be able to manage emotions, know how to behave in stressful situations, to be able to plan, to be able to use one's time effectively, to control one's emotional state.

3. A group of intellectual thinking skills: it is important to search and analyze information, to think creatively and logically, that is not in purely formal nature, to have design skills, and to make competent decisions.

4. Foresight-management: the specialist possesses such stable skills as task setting, project management, motivation, control, and easy access to feedback [19].

However, the methodology of the Future of Jobs by World Economic Forum is currently considered the most complete, according to which it was possible to compile a list of typical soft skills and divide them into three categories: abilities, basic skills, and cross-functional skills. At the same time, each category has an internal classification:

1. Abilities:

▪ cognitive;
▪ physical.

2. Basic skills:

▪ content skills;
▪ process skills.

3. Cross-functional skills:

▪ social skills;
▪ problem-solving skills;
▪ system skills;
▪ resource management skills;
▪ technical skills [25].

4 Results and Discussion

As practice shows, the main task of a modern higher education is to create a professional personality, ready to quickly adapt to a new social environment and capable of self-realization and career development in conditions of intensive introduction of information and digital technologies into the economic and social system of society. Therefore, the role and responsibility of the higher education institution in matters of the development of general and professional competencies of modern specialists are growing. Accordingly, in the context of the intensification of the introduction of information technologies into social production, the main competitive advantage is the availability of soft skills among employees.

At the same time, it is meant that regardless of professional qualifications, modern specialists should be distinguished by a high coefficient of soft skills, which should ensure career success. In general, the concept of "soft skills" has now become an integral part of the world labour market in the most diverse spheres of economy and society in the conditions of globalization. In addition, in many contexts, soft skills are equated with such terms as "employability skills", "people skills", "non-professional skills", "key skills", "skills for social progress", "life skills", etc. It is appropriate to state that in practice soft skills represent a complex combination of all the listed concepts.

The conclusions of the latest labour market research, which reflect a noticeable trend of employers` significant interest in "soft skills" among potential employees, are of particular interest. Most employers consider them equally important in comparison with professional knowledge and skills [24]. However, educational programs are overloaded with academic disciplines that develop students` "hard skills", i.e., "firm" skills related to knowledge of fundamental and special disciplines, acquisition of practical training, etc. It is hard skills that are easy to measure, they are quite objective. This group includes professional knowledge, skills, and abilities. Soft skills are difficult to measure, and, therefore, their assessment is subjective (honesty, initiative, diligence, learning ability, creative abilities, etc.) [9].

It should be noted that the practical construction of the "knowledge society", the introduction of the paradigm of continuous education, and the quality assurance of higher education lead to the fact that learning and acquiring new competencies have become an integral part of the life of members of society. Therefore, soft skills acquire special importance in the personal development and professional activity of graduates of higher education institutions, namely: sociability, communication skills, cognitive flexibility, adaptability, the ability to work in a team, leadership, the ability to resolve conflicts, creativity, critical thinking, general literacy, organization, initiative, responsibility, perseverance, the ability to take responsibility, the ability to make decisions, the ability to work in critical conditions, stress resistance, self-learning and self-development, self-management, emotional intelligence and emotion management, etc.

So, it can be argued that soft skills are necessary for any type of professional activity; therefore, they need to be actively formed in students at the stage of education in general secondary schools, and intensively developed in institutions of professional pre-higher and higher education. At the same time, institutions of higher education should have their own policy regarding the development of these skills in their students and teachers through a system of professional development and advanced training, which also determines cooperation with employers and graduates, and affects the reputational capital of higher education institutions. Positive practice is the formation of soft skills when studying specific disciplines, but it is not limited to this, because it can also take place within general and specialized disciplines [17].

In this aspect, it should be noted that, given the significant relevance of the development of student`s professional and personal competencies, in order to achieve competitiveness in the labour market, it is important to find out whether the developed system of the educational process allows students to form soft skills, increase competitiveness, and especially to achieve high rates of graduate employment. In this context, the opinion of the students themselves, graduates, as well as employers regarding the effectiveness of the acquired competencies in the context of the formed soft skills become important.

In addition, taking into account the objective difficulties with adaptation to the first workplace for graduates, it is necessary to develop recommendations for professional growth, where a special place should be given to the further development of soft skills, which depend on professional and personal success, and the content of educational programs should be updated through separate educational components regarding the formation of relevant professional and life competencies [14].

In order to determine the system of key soft skills for future specialists and build a classification, it is not enough to focus only on today`s requirements of the labour market. It is necessary to take into account the experience of developed countries and focus on the needs of the future. For this, the researchers studied the world experience of developing 21st-century skills in educational programs. A number of studies aimed at finding out which competencies the professional community is focused on were considered. This study was conducted by the Centre for Education at the Brookings Institution, which aims to support countries in improving the assessment, teaching, and learning of soft skills by increasing the level of assessment literacy among regional and national stakeholders in the field of education [4]. According to this study, the documents on education standards often refer to such competencies as creativity, communication, critical thinking, and problem-solving (Fig. 1).
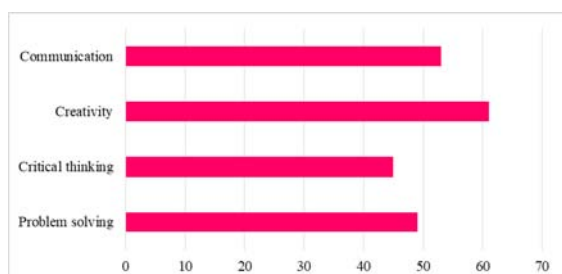
Figure 1. Competencies of the 21st century, which are most in demand according to a study by the Brookings Institute (November 2018)
Source: [4]

As one can see, these competencies are based on imagination, generating ideas, building arguments, establishing a lack of information and the ability to search for it, formulating one`s own ideas and developing the ideas of others, evaluating one`s own proposals and judgments, accepting the group`s goal and evaluating the overall results. Thus, it can be argued that the most important soft skills for future specialists in modern conditions are the following: critical thinking and the ability to make decisions, creativity, sociability, and the ability to work in a team.

Namely these skills allow solving complex professional tasks. They are classified as higher-order competencies. Undoubtedly, these are groups of skills, the structure of which includes a set of other smaller skills. Accordingly, the development of the second group of soft skills among students of higher education institutions should be aimed at ensuring the adaptability of future specialists to any changes in the environment in which they will have to work.

So, we come to the conclusion that the issue of competence formation and, accordingly, the transformation of education systems are considered at the current stage in almost all countries, therefore, in this sense, we can say that this aspect can play the role of a unifying trend of building a single educational space. From that, the level of economic development of countries, including the global economic space, which is directly related to the development of human capital, will depend on how the issue of competence formation will be resolved, and how it will be related to the modernization of production.

Thus, it is possible to form a system of key soft skills, which are currently of particular relevance in the process of training future specialists during their professional education while studying in higher education institutions (Table 1).

Table 1: Soft skills system of students in higher education

Help to solve complex tasks	Help to adapt to a changing environment
Critical and structured thinking	Adaptability
Ability to solve problems	Curiosity
Creativity	Initiativeness
Sociability	Purposefulness
Ability to work in a team	Emotional intelligence
	Leadership
	Motivation
	Positive thinking
	Self-management
	Ability to learn
	Stress resistance
	Responsibility
	Conflict management
	Social and cultural awareness

Source: developed by the author based on [13].

Thus, it can be argued that, in the modern sense, soft skills for students in higher education represent a set of social skills of an individual, which can be classified into interpersonal (such as the interaction of leadership qualities), organizational skills, and communication skills, which in general affect the successful performance of professional duties of specialists in any field of activity.

5 Conclusion

So, we conclude that the main soft skills, which, along with professional competencies, determine the professional self-realization of students of higher education are: the ability to work in a team, leadership qualities, creativity, organizational skills, communication, emotional intelligence, work with information, system thinking, motivation Achieving the goal of forming such skills among students is possible through an adequate construction of the educational process in institutions of higher education. In particular, it is necessary to ensure a high level of freedom for teachers in the choice of technologies, methodical and didactic material, organization of educational space, etc. A derivative need from this task is also the provision of a variety of means and methods of teaching scientific and pedagogical workers themselves. In modern conditions, innovative activity in education is becoming increasingly more significant, therefore the analysis and evaluation of new technical means, as well as the creation of the necessary conditions for their further successful application in the context of the development of continuous education in the conditions of e-learning, are important.

In addition, an understanding of soft skills is necessary for practical application as an element of the educational process that complements hard skills - professional skills that are part of job instructions and qualification characteristics of higher education applicants. At the same time, the objective necessity is to ensure the universal character of soft skills, which will be important for the successful professional realization of students.

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Primary Paper Section: A

Secondary Paper Section: AE, AM

THE USE OF BLENDED LEARNING INTERACTIVE TECHNOLOGIES IN THE EDUCATIONAL PROCESS IN THE CONTEXT OF EUROPEAN INTEGRATION PROCESSES IN UKRAINE ON THE EXAMPLE OF HUMANITARIAN SPECIALITIES

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Abstract: The article examines the modern specifics of the formation of the use of interactive learning technologies in the process of modernization of the educational process. The changes taking place in the education standards of many countries, which provide for the expansion of teaching methods for students of humanitarian specialties, including due to the intensive implementation of interactive learning technologies, have been determined. The task of training specialists in the conditions of the introduction of modern innovative technologies into the educational process has been defined. The role of the teacher in the process of learning with the use of interactive technologies, as well as the principles of his interaction with students under new conditions, were studied. It is proposed to implement the model of mixed learning in the educational process based on the use of computer-oriented learning tools.

Keywords: Interactive learning technologies, Soft skills, Blended learning, Educational communications.

1 Introduction

Modern world standards in education require the training of highly qualified specialists capable of integrating theoretical knowledge and practical skills into a coherent system, mastering new technologies, etc. For the successful realization of the personal potential of each student in the educational process, conditions must be created for the formation of such personality qualities as mobility, the ability to integrate into a dynamic society, critical thinking, the ability to generate new ideas, the knowledge allowing making non-standard decisions and bear responsibility for them, communicative skills, the ability to work in a team, the ability to model educational situations, etc. The use of interactive learning technologies contributes to the solution of such tasks. New forms of education also develop new relationships between teacher and student, and new subject-subject relationships. Namely the group form of work has gained popularity in educational institutions, as it contributes to personally oriented learning, which requires the development of scientifically based content and methods of organizing the educational process. Therefore, modern pedagogical science is in search of such learning technologies that would ensure the comprehensive development of the individual. As it is known, learning technology is a complete system, the main structural element of which is the learning situation, characterized by such components as the purpose, content, methods, and means of learning, the activities of the subjects of education, the form of organization of the learning process, and technical support.

Therefore, it can be argued that modern tasks of training qualified specialists in the system of higher education are usually solved by introducing innovative interactive technologies into the educational process. Therefore, the specified problem takes one of the first places in the theory of pedagogy and the practice of training students in higher education. At the same time, future specialists must possess a wide range of basic soft skills used in various spheres of life – emotional literacy, critical thinking, coordination and interaction skills, etc. Thus, the relevance of researching the problems of effective implementation of interactive learning technologies in the educational process is quite high at present. In addition, interactive technologies become important in the context of the strengthening of European integration processes in Ukraine after its acquisition of the status of a candidate for EU membership, which requires the adaptation of the national system of training specialists to European requirements.

2 Literature Review

The study of the principles of the use of interactive learning technologies proves that in the world`s leading psychological and pedagogical research and developments there is a sufficiently significant amount of work for reflection and own searches in relation to this issue. At the same time, in most cases, interactive technologies are considered an important component of the entire educational process for students of higher education. It should be noted that modern pedagogy studies and practice develop ways of using interactive learning technologies in the context of educational activity research taking into account the dialogic construction of content and learning technologies themselves and considering it as one of the aspects of pedagogical communication. In this context, it is necessary to note the research of such scientists and practitioners as M. Atkins [1], M. Gysels [4], A. Khan [7], Y. Kolisnyk-Humeniuk [8], L. Lebedyk [10], O. Pavelko [13], R. Tori [19], G. Volpe [21], S. Voloshyna [22], and others

In addition, it is worth noting a number of studies on the application of the most optimal interactive methods of training future specialists based on the organization of the educational process in an interactive mode and increasing the opportunities for an informal discussion. In this aspect, the most relevant are the works of such researchers as I. Balaniuk [2], Y. Chaliuk [3], S. Hennessy [5], M. Kademiia [6], T. Koval [9], N. Lokhman [11], D. Ostapchuk [12], M. Radchenko [14], V. Redko [16], N. Semenyshena [17], M. Violante [20], I. Yakoviyk [24], O. Zubenko [25] and others

At the same time, it should be noted that in modern conditions, when there is a need to adapt the Ukrainian higher education system to the requirements and criteria of the European Union, there is an objective need to improve existing methods of interactive learning based on the implementation of best practices of EU countries.

3 Materials and Methods

The study of the process of introducing interactive and computer-oriented technologies into the educational process was carried out using the following research methods:

- Monographic method, which was used for a comprehensive and deep study of individual phenomena, processes and identification of cause and effect relationships in the educational process. This method is important in the detailed study of individual observations selected as the object of a special study;
- Systems thinking – a direction of research methodology, which consists in the study of an object as a whole set of elements in a set of relations and connections between them, that is, consideration of an object as a system model. This method was used to assess the impact of computer-oriented technologies on the educational process;
- Generalization – a method of scientific knowledge, with the help of which the general features and properties of a certain class of objects are fixed and the transition from singular to general, from less general to more general is carried out;
- Abstraction - a method of scientific knowledge, which consists in mentally highlighting the essential, most essential features, relationships, aspects of the subject. With its help, the formation of interactive images in the learning process was studied.

4 Results and Discussion

Learning technology, as defined by UNESCO, in general terms means a systematic method of creating, applying, and defining the entire process of learning and assimilation of knowledge, taking into account technical and human resources and their interaction, which aims to optimize education. Educational technology is also often interpreted as a field of application for a system of scientific principles to the programming of the learning process and their use in educational practice with an orientation to detailed learning goals that allow for their evaluation. This branch is focused more on the person who doing training, but not on the subject of training, on the verification of the developed practice (methods and techniques of teaching) during empirical analysis and the wide use of audiovisual means in education, which defines the practice in close connection with the theory of education [9].

The accumulated experience of training students in higher education convincingly shows that interactive learning methods significantly contribute to the intensification and optimization of the educational process. In particular, they allow students to:

- Make the process of acquiring knowledge more accessible;
- Acquire the skills of formulating own opinion, expressing it correctly, proving own point of view, arguing and discussing;
- Learn to listen to another person and respect an alternative opinion;
- Simulate different situations, to enrich own practical experience through inclusion in different life situations and experiencing them;
- Learn to build constructive relationships in the group, determine own place in it, avoid conflicts, resolve them, seek compromises, and strive for dialogue;
- Analyze educational information; creatively approach the assimilation of educational material in the learning process;
- Find a joint solution to the problem;
- Develop the skills of project activity, independent work, and creative work [25].

Separately, it is necessary to highlight the latest computer-oriented teaching methods, which belong to the interactive ones, the main purposes of which are used in the process of training students of higher education:

- Development of attention, fantasy, imagination, observation, non-standard thinking, and interest in learning;
- Formation of a multicultural personality;
- Education of systematic, logical, critical, and creative thinking, as well as work capacity, inquisitiveness, cognitive independence, and persistence in achieving the set goal;
- Activation of educational and cognitive activity of students;
- Filling gaps in knowledge, skills, and abilities;
- Development of self-learning skills, self-development, and self-improvement;
- Formation of the ability to think, create, independently acquire and assimilate knowledge, skills, abilities, etc. [9].

As it is known, in the context of interactive learning, knowledge takes on a different form. On the one hand, this knowledge represents certain information about the surrounding world, which students receive not in the form of a ready-made knowledge system, but in the process of their own cognitive activity. On the other hand, in the process of interaction with other students and the teacher, the student masters the system of proven methods of activity in relation to him, society, and the world in general, and learns various mechanisms for finding knowledge in individual, group, or collective work. Therefore, the knowledge acquired by students in this way is at the same time a tool for their independent knowledge acquisition [14].

Thus, the goal of interactive learning can be defined as the teacher`s creation of such learning conditions under which the student himself will discover, acquire, and construct knowledge and his own competence in various spheres of life. This is the fundamental difference between the goals of interactive learning and the goals of the traditional education system currently operating in Ukraine.

During interactive learning, there is mutual learning, where both the student and the teacher are equal, equivalent subjects of the educational process. During interactive training, the teacher acts as an organizer of the learning process and a consultant. Interaction between students and cooperation are the main factors in the learning process. Learning outcomes are achieved through the mutual efforts of participants in the learning process; students take responsibility for learning outcomes. In the process of communication, students learn to solve complex problems based on the analysis of source data, identify contradictions, express alternative opinions, make balanced decisions, participate in discussions; simulate different social situations, and enrich their own social experience through inclusion in different life situations and experience them. They learn to build constructive relationships in the group, determine own place in it, avoid conflicts or resolve them, seek compromises, strive for dialogue, find a joint solution to the problem, and develop the skills of project activity, independent work, the performance of creative works.

It is important to consider that each learning subject needs to use an individual method because some can read by themselves, others – in a group, some need general silence, while others can study in a team. Some prefer the visual presentation, others perceive learning material by hearing, touching, or moving. Some have excellent visual memory and memorize printed text, while others perceive learning more easily in communication in an interactive group. Interactivity is also a characteristic feature of modern information and communication technologies, which contributes to the establishment of subject-subject interaction between the teacher and students based on the activation of processes of empathy, reflection, compassion, etc. Signs of interactive learning are the following:

- Focusing on the needs and self-worth of the individual;
- Prioritizing individuality;
- Cooperation and co-creation between students and teachers;
- Improvement of pedagogical relations [8].

It should also be noted that interactive learning technologies include a planned expected learning result, separate interactive methods, learning tools that stimulate the learning process, mental and learning conditions, and procedures, with the help of which the planned results can be achieved [6]. The essentiality of modern interactive learning technologies lies in determining the most rational of its components to achieve the ultimate educational goal. At the same time, the educational process should be considered comprehensively as an integrated system, and one should not limit oneself only to the analysis of its elements. Therefore, interactive learning technologies represent a holistic and integrative system of the learning process, which, by the goals and content of learning, provides for the complex application of interactive methods, means, and forms of learning selected according to the principles of expediency of implementation and mutual complementation to achieve a pre-planned educational result.

The effective conduct of educational interactions in a mixed form of education depends on the creation of an atmosphere of friendliness and attention to each student. An unconditional rule is an interesting attitude towards students when they feel that the teacher listens to everyone with equal attention and respect for both the individual and his point of view. One of the most difficult problems is reacting to errors [23]. An absolute rule of interactive learning is to refrain from any praise or criticism. At the same time, the teacher should not ignore the illogicality of reasoning, obvious contradictions, unsubstantiated statements. It is necessary to use tactful remarks to clarify statements or given factual data, to support the expressed opinion, and encourage to think about the logical consequence of the expressed ideas. During a long discussion, an intermediate determination of the results of specific interaction is carried out – summarizing the

results of the discussion at the current moment so that the participants can better orient themselves in the directions of further discussion [22].

An effective type of group activity in a mixed form of education is the "Jigsaw" method developed by E. Aronson in 1978. In the created educational situation, students act as a teacher, passing on the learned information to each other. The educational activity is carried out in groups of 6 people to work with certain parts of the educational material, which are combined into blocks according to content and logic. Each member of the group works on his part of the material, and then representatives of different groups that studied the same issue meet and exchange information. Such an exchange is called a "meeting of experts". After that, the "experts" teach their own groups what they learned. In turn, other members of the group similarly process their own part of the material like the 'teeth of the same saw'. Mastering the material and getting a holistic view of the phenomenon being studied is possible only by carefully listening to colleagues and making appropriate notes, so students will be interested in conscientiously performing their own and joint parts of the work. It is interesting that each individual and the group as a whole report on the topic. At the final stage, the teacher offers any group member a question on the topic. All these aspects make it possible to involve and attract to activity even passive students with low motivation or insufficient level of proficiency [25].

At the same time, it is necessary to understand that there are certain difficulties that hinder the instant, quick, and effective application of interactive methods. First of all, studies show that most teachers themselves do not know the content of the methods and ways of organizing students` interactive cooperation. This toolkit still remains new and poorly researched in the domestic Ukrainian didactics of higher education and is not sufficiently used in its practice. In addition, the issue of how to select the interactive methods needed for a particular subject and how to "incorporate" interaction into the forms of classes traditional for higher education in Ukraine – lectures, seminars, workshops – is not sufficiently clarified. Therefore, it is necessary to ensure the gradual transition of the entire system of training students of higher education to EU standards, according to which the interactive learning model involves the use of a technological approach based on a set of interactive technologies, the common feature of which are the principles of interaction: multilateral communication, interaction and mutual learning of students, cooperative educational activities with relevant changes in the role and functions of both students and teachers. Such a model also involves a special understanding of classes in institutions of higher education as a form of education, which is also based on a technological approach.

In today`s conditions, such a technological approach is transformed into a system based on the use of mobile gadgets for learning, with the use of special software applications. All this significantly increases the effectiveness of the educational process, especially in the case of a mixed form of student education. The main advantages of such technological solutions related to the use of mobile devices in the educational process are as follows:

- The use of communication channels in order to receive instant consultations;
- The possibility of continuous training in the Internet;
- Testing and self-monitoring of knowledge;
- The use of electronic publications;
- The use of audio and video files in the learning process [6].

Thus, interactive learning not only provides knowledge, skills, methods of activity, and communication skills, but it is a necessary condition for establishing and perfecting professional competence (competence as a proven readiness to act) by involving the students in the educational process in the deliberate maintenance of individual and collective activities for the promotion of knowledge, awareness, and adoption of values.

On the other hand, since interactive learning provides the possibility of communication with the teacher and students on learning, co-competition in the process of cognitive and creative activity, then the system of control over the acquisition of knowledge and methods of cognitive activity, the formation of the ability to apply the acquired knowledge in later situations can be built on the basis of operative feedback, which makes the control of knowledge, skills, and abilities permanent and more flexible and humane [18].

In general, it can be stated that the use of computer-oriented tools in the learning process increases interest and general motivation due to new forms of work and involvement in the priority direction of scientific and technical progress. It implies activation of training thanks to attractive and rapidly changing forms of information presentation, individualization of training, prompt access to information. The use of computer-oriented learning tools significantly increases the intensity of the educational process and allows covering a significant amount of educational material, which is assimilated more effectively thanks to positive motivation.

It should also be noted that computer-oriented learning tools are of leading importance not only as an element of the interactive learning system but also as a key element of distance learning, which is used in its mixed form and has gained special relevance in recent years. At the same time, the introduction of the blended learning model into the educational process based on the use of computer-oriented learning tools is based on:

1. Usage multimedia and virtual resources when working in the classroom.
2. Usage of created sites to support blended learning.
3. Usage of course management systems.
4. Usage of synchronous and asynchronous discussions [15].

Therefore, the use of a mixed form of education in the educational process can become one of the key directions of modernization of education in higher education institutions, as it opens up wide opportunities for independent work of students under the guidance of a teacher, promotes the development of an independent creative activity, stimulates the acquisition of additional knowledge and their consolidation, which gives the opportunity to train competitive specialists based on the integration of new interactive learning technologies in the process of training future specialists.

5 Conclusion

Thus, we come to the conclusion that interactive learning technologies represent a holistic and integrative system of the learning process, which provides, in accordance with the learning goals, the most rational application of interactive methods, techniques, means, and forms of learning selected according to the principles of communicativeness, the expediency of implementation, and mutual complementation in order to achieve in advance planned learning outcome. Hence, the use of interactive technologies in the educational process of higher educational institutions enables:

- Increasing the effectiveness of classes and students` interest in future professional activities;
- Developing communication skills and abilities, forming emotional contact between students;
- Forming analytical abilities and a responsible attitude to one`s own actions;
- Forming students` planning skills;
- Ensuring the formation of self-control and self-assessment skills in students of higher education.

The expected result of such a process of forming students` skills, when using interactive learning methods, should be a conscious mastery of the method of organizing interactive learning. Also, such activity significantly contributes to the more effective form of professional competence of future specialists in general.

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D   EARTH SCIENCES

FORMATION OF THE NATURAL RESOURCE ECONOMICS IN THE SYSTEM OF ENVIRONMENTAL AND ECONOMIC SECURITY IN UKRAINE

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Abstract: The article examines the modern specifics of the formation of the system of ecological and economic security and the construction of an effective economy of nature use in Ukraine. Modern concepts aimed at solving the problems of ecological and economic security in conditions of limited and depleted natural resources are considered. The problems of ensuring environmental safety in the business processes of modern enterprises have been identified. The methodological basis of the study of the problems of ensuring environmental safety and economic development was studied. It is proposed to apply greening of production as a priority direction of economic development to build an effective economy of nature use.

Keywords: Ecological safety, Economics of nature use, Greening of production, Ecological and economic efficiency.

1 Introduction

The modern specificity of approaches to environmental protection involves a significant variety of approaches to the practical implementation of environmental standards in the process of conducting economic activity. At the same time, it should be noted that quite often the issues of nature protection and the need to ensure the expanded and effective development of the economy are often considered as separate and sometimes mutually contradictory activities. All this leads to the accumulation of systemic negative environmental consequences due to insufficient consideration of possible impacts on the surrounding natural environment in the process of planning and implementation of economic policy, strategic planning, and design of the development of the national economy. Therefore, the emergence of a problem related to the fact that environmental issues cannot be solved only by singling out environmental protection as one of the directions of socio-economic development, considering it separately from the general complex of existing socio-economic and technological problems, is indisputable. It should be noted that economic development, in general, causes an increase in the volume of harmful emissions, and also leads to the gradual depletion and irrational use of natural resources, contributing to the increase of anthropogenic load on the environment. That is why a situation existing in the system of ecological and economic nature management requires the implementation of a sound economic policy aimed at balancing the ecological and economic goals of development and thereby contributing to the formation of an effective system of ecological and economic security.

In addition, the use of various tools to create a business environmental security system is actively implemented in modern enterprises and is one of the criteria for the effectiveness of their activities. In this aspect, approaches to ensure the greening of investments in production activities, the formation of mechanisms for improving the system of environmental taxation in the aspect of ensuring the ecological and economic impact on the activities of business entities, and methodological approaches to the improvement of economic tools of environmental management to ensure the balanced development of the environment are becoming particularly relevant. All this also leads to a growing need for in-depth research on ensuring the ecological and economic safety of the business and solving the pproblems of rational nature management.

2 Literature Review

The study of the issues of ensuring the effective use of nature and reducing the anthropogenic burden on the surrounding natural environment in the process of economic activity is not new for scientists, and the key provisions of this issue are widely disclosed in the works of such Ukrainian scientists as O. Apostolyuk [2], O. Binert [4], I, Britchenko [7], A. Cherep [9], P. Ghisellini [20], K. Kostetska [22], R. Kothari [23], T. Mishustina [24], O. Pavelko [25], T. Shmatkovska [28-32], R. Sodoma [34-37], S. Voloshyna [43], I. Yakoviyk [44], Ya. Yanyshyn [45], P. Young [47] and many others.

In addition, it is worth noting the significant contribution made to the study of aspects of ensuring environmental and economic safety of economic activity in modern business conditions by such scientists and practitioners as O. Agres [1], I. Balaniuk [3], A. Boiar [5], A. Braga [6], Y. Chaliuk [8], M. Dziamulych [10-19], S. Schaltegger [26], N. Semenyshena [27], O. Stashchuk [38-40], A. Tiurina [41], D. Tiwari [42], O. Yatsukh [46], and others.

At the same time, today`s urgent need is to deepen research in the field of integration of economic and ecological security policy, improving the quality of the natural environment and ecological conditions of human habitation, forming a balanced ecologically oriented model of economic development, guaranteeing ecological and economic security of conducting business activities in general.

3 Materials and Methods

The methodological basis for ensuring ecological and economic security in the field of nature economy is a set of methods and techniques for conducting research on the availability, movement, and efficiency of the use and protection of natural resources. This methodological foundation is based on general scientific and special methods of scientific knowledge.

An important place among the special methods of ensuring environmental and economic security is occupied by economic and statistical methods, which are systematized according to their intended use in the order of the sequence of economic and statistical research:

- A collection of primary statistical information;
- Statistical compilation and processing of primary information;
- Analysis of statistical information [33].

The method of comparative (variant) calculations can be used to compare the economic efficiency of various environmental protection measures and environmentally safe production technologies. Comparative calculations can be used to compare normative and actual costs with the subsequent clarification of the reasons for their discrepancy.

With the aim to coordinate and interrelate the components of the studied phenomenon, to maintain the balance of quantitative proportions, the balance method of research is used. This method plays an important role in the preparation of national economic coordination plans.

In the economics of nature use, mathematics is applied through the construction of economic-mathematical models, which have an economic meaning and are designed to highlight the most important features of the studied object, facilitate cognition and determine the ways of effective development of the process. Mathematical modeling in the economics of nature use is applied

when optimal quantitative expressions of predicted indicators are determined on the basis of source information using software methods [33].

4 Results and Discussion

Among the concepts aimed at solving the problems of ecological and economic security in the conditions of limited and depleted natural resources, the leading place belongs to the model of ecologically oriented development, which contributes to the simultaneous solution of two key issues: ensuring economic development and reducing the negative impact on the environment.

At the international level, environmental and economic policy is primarily aimed at ensuring coordinated actions in the field of environmental safety, establishing norms, rules, and standards of state behavior in this field. In particular, a number of documents in this direction are being developed under the auspices of the UN:

- Agreed principles of ecological integration of countries into the world community;
- A single international system of environmental monitoring;
- Unified methods of assessing the state of natural resource potential;
- Unified methods of environmental impact assessment;
- The general methodology for assessing the risk of occurrence and development of emergency situations and disasters of a natural and man-made nature;
- Unified rules and regulations in terms of personnel and equipment for the rapid response service for emergency situations;
- International conventions, agreements, rules, and procedures that ensure the coordination of joint actions in the field of risk assessment and the implementation of measures to prevent and eliminate the consequences of emergencies and disasters of a natural and man-made nature [41].

At the same time, the problem of environmental security of business lies in the question: is it possible to avoid threats to ecological and economic security, not reducing, but on the contrary, accelerating the development of productive forces and at the same time preserving the biosphere? It is quite clear that the coexistence of these two trends also implies the presence of limitations for their general development and the search for compromise solutions since a bias in one direction generates negative consequences. The most effective and efficient levers in the system of ecological security are undoubtedly the economic mechanisms of nature management. The inclusion of an environmental protection component in the price structure is intended to correct business defects associated with the incomplete reflection of certain costs and benefits related to environmental pollution and its control. Implementation of the main principle of ecological business – "the polluter pays" – can not only increase the value, improve or support the quality of the environment, but also contribute to reducing the production of goods, from the sale of which these payments come. In these conditions, the principle of the inevitability of punishment should be applied, and the number of fines (if a stricter measure is not applied) should far exceed the value of the damaged objects in the natural environment [47].

It should also be noted that the development of scientific directions of research in the field of ensuring environmental and economic security requires the mandatory use of a holistic methodological basis and its elements - in particular, approaches, methods, and theories that determine the intended purpose of practical results (Table 1).

Table 1: The methodological basis for the study of the problems of ensuring environmental safety and economic development

Scientific approaches to research	Structural elements of the methodology
Institutional approach	Definition of the object and subject of research
The systemic approach	Goal setting and tasks
The systemic and functional approach	Formation of a conceptual model for ensuring environmental and economic security
Dialectical approach	Identification of threats and risks of environmental and economic security
Functional approach	Diagnostics of the level of environmental and economic security
The structural and functional approach	The implementation mechanism and models for ensuring environmental and economic security
Program-targeted approach	Formation of a strategy for ensuring environmental and economic security
Scientific approaches to research	Structural elements of the methodology

Source: generated by the author.

Thus, we come to the conclusion that the study of modern trends in nature management and the use of resources in economic activities prove that the current trends in the movement towards achieving environmental goals are accompanied by a shift in emphasis in the system of ecological and economic security. In this aspect, some scientists suggest considering the right to pollute the environment as a specific part of natural capital, which leads to a change in subject-object relations in nature management. And although the ultimate goal remains the reduction of anthropogenic impact, the process of virtualizing nature use, transferring it to the sphere of waste and emissions trade, shifting attention directly from natural resources to technological development and its consequences is taking place. Today, nature management is turning into waste management, and its basis is the technosphere. The latter requires an update of approaches to ensuring the environmental security of the strategic potential of the progressive dynamics of the development of the productive forces in the regions of Ukraine based on taking into account global development factors, determining the main trends of socio-economic development and structural shifts of the productive forces, as well as an integral assessment of the ecological state of the regions [23].

Thus, the strategy of ensuring ecological and economic security moves into the plane of forming a general system of ecologically oriented development of society, which involves comprehensive assistance in establishing optimal parameters of the ecological and economic system, that do not threaten its integrity and create opportunities for dynamic development and establishing a balance between the needs of society and limitations of the natural environment. Therefore, this type of development is able to effectively ensure the preservation of the assimilation potential of the natural environment for safe use in the process of economic activity.

Therefore, in addition to the problems, the development of a new paradigm for ensuring environmental and economic security is of primary importance. Considering that the process of its provision in the theoretical-applied aspect is a complex object of research, which is primarily caused by a set of different elements that perform different functions, we consider it necessary to use a system-functional approach and appropriate tools. Thus, the main theoretical and methodological provisions for ensuring ecological and economic security are based on the imperatives of the concept of sustainable development, the theory of external effects, the theory of public welfare, the general theory of security, as well as on a number of state conceptual provisions, in particular: Concepts of balanced development of

agroecosystems in Ukraine for the period up to 2025; Concepts of the national environmental policy of Ukraine; The main directions of the state policy of Ukraine in the field of environmental protection, use of natural resources and ensuring environmental safety, etc. [27].

On the basis of the conducted research, several scenarios for ensuring the ecological and economic security of the strategic potential of the progressive dynamics of the development of the productive forces in Ukraine have been determined [23].

The territorial scenario involves an orientation towards reducing the man-made load on territorial recipients (elements of the natural environment, people). This scenario determines the priority of the formation of management strategies for the protection of recipients from harmful man-made influences. At the same time, the main territorial recipients are considered, as a rule, a person (his health, working capacity, normal conditions of recreation, etc.), natural complexes, and ecosystems (ensuring their stability, not exceeding the assimilation potential, structural integrity), material objects of production and life activities (observance of normal conditions for their preservation and functioning). Accordingly, management decisions within the framework of the territorial scenario are primarily aimed at ensuring compliance with standards of permissible levels of pollution and harmful man-made impacts, which are considered safe for the specified recipients [21].

The organizational and management scenario is primarily focused on reforming existing management mechanisms (institutional, regulatory, administrative, economic, etc.) and introducing the latest management technologies. It provides for methodological and methodical reform of the management strategy based on the involvement of more effective mechanisms and tools. As a rule, the main efforts are aimed at improving the structure and tools of the economic mechanism of technogenic and ecological safety management [23].

The technological scenario provides for the primary identification of the most man-made and dangerous objects and the technological and technical root causes of excessive load on the environment and the development of organizational and technical measures to eliminate or minimize their harmful effects. The technological scenario emphasizes the search for "key links" of the regional technogenic-ecological crisis and the formation of management decisions regarding their "disposal" or transfer to an ecologically safe functioning mode [21].

Moreover, the system of environmental and economic security includes a number of elements and subsystems that closely interact and logically complement each other. First, these are the subjects of ensuring environmental security (state authorities, local self-government bodies, and agricultural producers) and the object (ecosystem), the safety of which these subjects must ensure, and the principles and functions of ensuring ecological and economic security. The main goal of the ecological and economic safety system in such a case is to prevent the occurrence of environmental threats and risks, and their timely detection, localization, and elimination. To realize this goal, tasks are formed and performed taking into account the specifics of the object of ensuring environmental and economic security. Knowledge of the essence of the principles enables subjects to consciously organize their activities and accordingly influence the process of ensuring environmental and economic security in general [27].

Ensuring the integration of economic and environmental development largely depends on the transformation of the economy and structural changes which occur regardless of its state. At the same time, in some cases, such changes play the role of a structural limitation of growth, while in other cases, they create prerequisites for a rapid rise. Structural transformations are also the cause of the economic crisis, which can be overcome thanks to changes in the composition of driving forces and sources of economic growth. Therefore, a prerequisite for the sustainable development of Ukraine is the integration of

environmental policy into sectoral and regional plans and programs in order to find opportunities for their mutual strengthening, as well as coordination of environmental priorities. However, for the sectoral ministries and agencies, this has not yet acquired primary importance and is often perceived as setting restrictions on sectoral activities, creating difficulties and additional costs for the purpose of developing a specific industry. Strategic planning in Ukraine is not focused on ecological development, but only on socio-economic development, and practically does not take into account the third component of sustainable development – the environment. The reflection of issues of environmental protection in the plans of ecological and economic development is done by preparing a small separate section that does not contain environmental requirements and a description of alternative ways of development [41].

5 Conclusion

Therefore, it can be stated that the real threats to ecological and economic security confirm the need to improve the system and the process of its provision, which involves prevention of these threats, as well as their detection and localization, and the formation of a directly effective mechanism for preventing the occurrence of danger to human health and the degradation of natural resources, and protect biological diversity from the possible negative impact of ecologically destructive factors impacting the surrounding natural environment. Therefore, it is very important, in contrast to the traditional idea, to consider the system of ecological and economic security not as an element of purely environmental policy, but as a set of elements and interconnected subsystems: informational-analytical, supply, functional-instrumental, and result-targeted.

In addition, one of the priority directions of economic development should be the greening of production, the implementation of which will allow solving specific environmental problems at the level of enterprises in the conditions of the environmental crisis. Environmentalization is possible in two directions. The first one is the comprehensive environmentalization of the entire production, which involves the use of environmentally friendly fuels, technologies, and highly efficient cleaning equipment followed by waste disposal. However, direct implementation is usually associated with significant capital expenditures and long implementation times. The second direction involves the greening of the entire management system of the production complex by taking into account the environmental factor in its structural elements.

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Primary Paper Section: D

Secondary Paper Section: DI, DJ, DK, DN, EH

F   MEDICAL SCIENCES

FA   CARDIOVASCULAR DISEASES INCLUDING CARDIO-SURGERY
FB   ENDOCRINOLOGY, DIABETOLOGY, METABOLISM, NUTRITION
FC   PNEUMOLOGY
FD   ONCOLOGY AND HAEMATOLOGY
FE   OTHER FIELDS OF INTERNAL MEDICINE
FF   ENT (IE. EAR, NOSE, THROAT), OPHTHALMOLOGY, DENTISTRY
FG   PAEDIATRICS
FH   NEUROLOGY, NEURO-SURGERY, NUERO-SCIENCES
FI   TRAUMATOLOGY AND ORTHOPAEDICS
FJ   SURGERY INCLUDING TRANSPLANTOLOGY
FK   GYNAECOLOGY AND OBSTETRICS
FL   PSYCHIATRY, SEXOLOGY
FM   HYGIENE
FN   EPIDEMIOLOGY, INFECTION DISEASES AND CLINICAL IMMUNOLOGY
FO   DERMATOLOGY AND VENEREOLOGY
FP   OTHER MEDICAL FIELDS
FQ   PUBLIC HEALTH SYSTEM, SOCIAL MEDICINE
FR   PHARMACOLOGY AND APOTHECARY CHEMISTRY
FS   MEDICAL FACILITIES, APPARATUS AND EQUIPMENT

RESULTS OF SELECTIVE CAPSULOTOMY AND SUPRASPINATUS TENDON REPAIR IN PATIENTS WITH DIABETES (RETROSPECTIVE STUDY)

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Abstract: The article describes selective capsulotomy for RC repair in DM patients with RC tendon ruptures. The results of surgery and post-op follow-up in 3 and 6 months after surgery for two groups of patients (the group who underwent arthroscopic selective capsulotomy of the shoulder joint and the group who did not undergo selective capsulotomy) are presented. The total size of sample of included patients was 110 participants. The function of the shoulder joint was evaluated using the Constant Shoulder Score and VAS Descriptive statistics methods were used to display the general characteristics of the initial parameters, indicating the average value and standard deviation. Patients with type 2 diabetes who underwent supraspinatus tendon suture and selective capsulotomy had better average functional results 3 months after surgery on the Constant Shoulder Score and VAS scale, and in 6 months patients who underwent selective capsulotomy reported better level f VAS pain syndrome.

Keywords: Shoulder joint, Tendon ruptures, Capsulotomy, Diabetes mellitus.

1 Introduction

Ruptures of rotator cuff of the shoulder (RC) range from 18% to 36% among all shoulder joint injuries [6, 9, 16]. In at least 40% of cases, RC tendon ruptures are accompanied by a contracture of the shoulder joint [13, 18]. The main causes of post-traumatic contracture in patients with RC tendon rupture are considered to be pain, hemarthrosis or inflammatory changes in the capsule of the shoulder joint [6, 9, 18]. During arthroscopy in such patients, we can detect inflammatory changes and thickening of the capsule of the shoulder joint. The frequency of contracture after RC repair (so-called post-immobilization contracture) ranges from 4.9% to 23% [13, 18].

Patients with diabetes mellitus (DM) have a greater tendency to develop contractures in the shoulder joint. In this case, adhesive capsulitis is diagnosed. Contracture of the shoulder joint in patients with diabetes occurs with a frequency from 10% to 41.7% [4], while in the general population it ranges from 2–5% [1, 15, 16].

The debatable issue is if we need to perform selective shoulder capsulotomy during RC repair in patients with DM. On the one hand, the thickened capsule and the contracture of the shoulder joint have a positive effect on the RC healing, and the long-term results after one year of observation have no differences in patients who underwent selective capsulotomy and who did not undergo this procedure [2, 13, 8, 11]. On the other hand, a contracture that lasts for a long time leads to hypotrophy of the RC and deltoid muscles, decrease of bone density, and degenerative changes in the articular cartilage [4, 16].

Some authors recommend staged treatment: on the first stage - conservative treatment of adhesive capsulitis, on the second stage - the suture of the RC tendons [19]. However, this approach significantly prolongs the duration of treatment, and in patients with diabetes mellitus, it can lead to a series of complications (infection after injections in shoulder joint, fractures during redressing procedure, separation of the scapula labrum, formation of rotator cuff arthropathy, etc.).
The aim of our study was to compare the results of treatment of patients with diabetes who underwent selective capsulotomy and those who did not undergo this procedure during RC repair.

2 Materials and Method

From 2015 to 2020, we performed 825 RC repairs in the clinic of Microsurgery, reconstructive and restorative surgery of the upper limb of the State Institution "Institute of Traumatology and Orthopedics of the National Academy of Medical Sciences of Ukraine" (Kyiv). Of these, 169 patients were with DM type 2, supraspinatus tendon rupture, and shoulder joint contracture of various degrees (restriction of passive movements in the shoulder joint). All 169 patients underwent arthroscopic double-row suture of the supraspinatus tendon and tenodesis of the long biceps head tendon. Part of these patients underwent arthroscopic selective capsulotomy of the shoulder joint (group 1), while another part did not undergo selective capsulotomy (group 2). All patients were warned about the specifics of their surgical intervention and gave informed written consent to perform the surgical intervention.

59 patients were excluded from the study: 37 patients did not find time for control observation and visit to a doctor in 3 months after the surgery; in 9 patients, there were a repeated rupture of the supraspinatus tendon within 3 months after the operation, which was discovered during ultrasound examination; 13 patients did not followed the standard rehabilitation program. We included into the study 110 patients who underwent full rehabilitation program and all stages of post op follow-up until 6 months after surgery. The average age of the patients was 51.4 ± 12.6. All patients were divided into two groups (group 1 – with selective capsulotomy that was performed during RC repair, group 2 – without selective capsulotomy during supraspinatus tendon suture). The general characteristics of the groups are given in Table 1.

Table 1: Main characteristics of groups

Characteristic	Group 1 (n=74)	Group 2 (n=36)	p
Age	42.1±8.9	40.1±16.1	0.731*
Gender: male/female	39 (52.7%) / 35 (47.3%)	20 (55.6%) / 16 (44.4%)	0.182**
Tear size, mm	12.5±10.2	18.1±12.1	0.52*
Time from injury to surgery (months)	1.51±0.91	1.92±0.44	0.061***
Flexion angle in the shoulder joint before surgery	80.8±8.2	90.1±16.2	0.42*
Extension angle in the shoulder joint before surgery	8.8±10.1	15.1±6.1	0.71*
Abduction angle in the shoulder joint before surgery	20.7±18.2	31.1±14.4	0.74*

* — Student's criterion; ** — χ^2 criterion; *** — Mann–Whitney test.

In our study, we evaluated the function of the shoulder joint using the Constant Shoulder Score and VAS before surgery, in 3 and 6 months after surgery. According to the Constant Shoulder Score scale, the maximum number of points is 100, the minimum is 8. The injured and healthy upper limbs were compared. A difference of more than 30 points between two limbs was considered an unsatisfactory result, 21–30 points – a satisfactory result, 11–20 points – a good result, and less than 11 points – an excellent result [12].

All patients were examined clinically and radiologically, and all patients underwent an MRI examination. MRI studies of the anatomical structures of the shoulder joint, including the tendon of the supraspinatus muscle, were performed in the following modes: T1, T2, Pd and Pdfatsat.

In 4.1±0.9 months after surgery, the patients underwent an ultrasound examination for assessing the supraspinatus muscle tendon healing. Ultrasound with multifrequency sensors were used (stationary Philips ATL 3500 and a portable Honda-2000). Optimal visualization was achieved using the "musculocutaneus superficialis" mode, which corresponded to a frequency of 7.5 MHz.

The criteria for inclusion in to the study were as follows:

- Injury of the shoulder in the anamnesis, age from 30 to 60 years,
- A full thickness rupture of the supraspinatus muscle tendon (from 15 to 30 mm, which we determined objectively with the help of an arthroscopic ruler (Fig. 1a)),
- Standard protocol of surgical intervention (double row RC repair),
- The duration of the disease from 10 to 100 days,
- Thickened capsule of the shoulder joint (Fig. 1b),
- Absence of concomitant pathology of the shoulder joint (omarthrosis, rupture of the scapula labrum, rupture of the subscapular muscle tendon, calcifying tendinitis of the RC tendons, any bone pathology of the proximal epimetaphysis of the humerus),
- Examinations of the patient after surgery in 3 and 6 months,
- Video record of surgery,
- Compliance to the terms of immobilization and rehabilitation programs.

Surgical technique: the patient was placed in the "beach chair" position with 2-3 kg traction on the affected limb, 5 arthroscopic portals were performed (2 into the shoulder joint, 2 into the subacromial space, 1 in the projection of the long biceps head tendon, which was later used as a port into the subacromial space). Intraoperative diagnosis was carried out using an arthroscope with a diameter of 4.5 mm with an optical tilt of 30º.

All patients underwent: tenodesis of the tendon of the long biceps head at the level of the intertuberous groove with fixation with a SwiveLock screw (diameter of 7-9 mm) (Fig. 1c), acromioplasty (Fig. 1d), subacromial bursectomy, synovectomy of the rotator interval. In group 1, dissection of the anterior and posterior parts of the shoulder joint capsule was performed using a vaporizer (Fig. 1e) or arthroscopic scissors (Fig. 1b). In addition, the following was applied: a double-row supraspinatus tendon repair using two BioComposite Corkscrew FT Suture Anchors, 5.5 mm x 14.7 mm in the proximal row and one BioComposite SwiveLock SP Self Punchsng with Titanium Eyelet in the distal row. In this way, we performed a double-row "V"-shaped RC repair (SpeedFix) (Fig. 1f).

After surgery, all patients in the operating room were immobilized in bandage with abduction pillow (angle of 20º). After 6 weeks, all patients began to perform a standard rehabilitation program. Exercises were performed three times a day for 30 minutes in the first 2 weeks under the supervision of a rehabilitation specialist, then by the patient independently for 30 minutes 3 times a day until a normal shoulder-scapular rhythm was achieved.

Statistical data processing was carried out using the Statistica 12 package (StatSoft, USA). Descriptive statistics methods were used to display the general characteristics of the initial parameters, indicating the average value and standard deviation. For variables with a normal distribution, group comparisons were performed using the Student's test. The condition of equality of variances was checked using the Livigno test. In order to determine the statistical significance of differences between groups, the Mann-Whitney test was used for quantitative (non-normally distributed) and ordinal variables,

and the χ2 test and Fisher's exact test were used for qualitative ones. Comparison of quantitative and ordinal variables in dependent samples was performed using the Wilcoxon test.
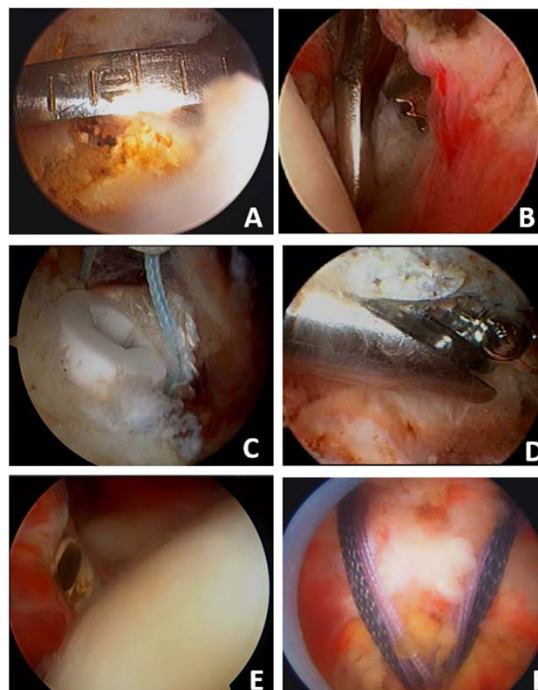

Figure 1. Stages of surgical intervention (explanation in the text).

3 Results

In Table 2 and Table 3, the average results of treatment of patients in two groups before surgery, 3 and 6 months after surgery are shown. Each time, patient independently filled out the form with the Constant Shoulder Score scale and VAS. The patient performed the test with a dynamometer until pain sensations appeared. Control of the correctness of all tests of the Constant Shoulder Score scale was performed by one doctor, who was an assistant during the surgical intervention.

Table 2: Average results of treatment of patients in groups 1 and 2 according to the Constant Shoulder Score at different periods of observation

Terms of examination of patients	Group 1 (n=74)	Group 2 (n=36)	P (Wilkson's criterion) †
Before the surgery	25.8±13.1	23.5±9.3	0.91
3 months after the surgery	15.5±7.2	19.5±6.1	0.33
6 months after the surgery	12.1±5.2	11.1±6.2	0.54

As one can see from Table 2, before surgery, the average results of shoulder joint function according to the Constant Shoulder Score in the two groups were practically the same and ranged within 24 points (the difference in scores between healthy and diseased shoulder joints). Three months after the surgery, in group 1, the average functional result on the Constant Shoulder Score was slightly better than in group 2 and ranged approximately 15.5±7.2 points. Six months after surgery in groups 1 and 2, the average functional results on the Constant Shoulder Score scale did not differ and ranged from 11 to 12 points. We rated them as excellent. According to the VAS scale, we obtained the following results (Table 3).

As we can see from Table 3, before the surgical intervention, the average score of the pain syndrome of patients in groups 1 and 2 according to the VAS scale were practically the same and ranged from 3.6 to 3.8 points. Three months after the operation, in group 1, the average score on the VAS scale was slightly better than in group 2 and ranged approximately 1.55±1.2 points. Six months after surgery, the mean VAS score in group 1 was also slightly better than in group 2.

Table 3: Average results of treatment of patients in groups 1 and 2 according to the VAS scale at different periods of observation

Terms of examination of patients	Group 1 (n=74)	Group 2 (n=36)	P (Wilkson's criterion) †
Before the surgery	3.8±2.1	3.6±1.8	0.9
3 months after the surgery	1.55±1.2	1.91±0.8	0.33
6 months after the surgery	1.8±1.2	2.2±1.3	0.5

Thus, patients in group 1 (suture of the supraspinatus tendon and selective capsulotomy) had better average functional results 3 months after surgery according to the Constant Shoulder Score scale and according to the VAS scale. At 6 months postoperatively, the Constant Shoulder Score scores were almost identical, but according to VAS patients in group 1 had better results.

4 Discussion

The issue of optimal treatment tactics for RC rapture and various concomitant pathologies of the shoulder joint in patients with DM remains relevant and understudied. This is related to the peculiarities of blood supply and regeneration of various parts of body, including tendons of the RC in patients with DM.

Most of the studies conducted by our colleagues, comparing the results of selective capsulotomy in patients with contracture of the shoulder joint that occurred after RC rupture, do not take into account the presence of diabetes or any other pathology that may negatively affect rehabilitation [6, 9, 18]. In their studies, the results of treatment in patients who underwent selective capsulotomy and in patients who did not undergo this procedure were almost the same 12 months after the surgery [6, 9, 18].

H.S. Park and co-authors in their study indicate that the results of selective capsulotomy in patients who underwent RC repair one year after surgery are better than in the group where selective capsulotomy was not performed [14]. Also, it is interesting that this work proves the need for only anterior and anteroinferior capsulotomy and excludes the need for posterior capsulotomy, which reduces the duration of surgical intervention [14].

In the work of Y.S. Kim and co-authors, the results of early and delayed surgical interventions are compared, in which the authors performed a RC repair and a selective capsulotomy. It has been proven that early and delayed surgical interventions show the same results 12 months after surgery, so it does not make sense to carry out long-term conservative treatment in patients with RC tendon rupture and secondary adhesive capsulitis [14].

The issue of treatment of shoulder joint contracture in patients with DM can be considered solved, since a huge number of works indicate positive results of selective capsulotomy under arthroscopic control in this group of patients [12]. Despite this, the results of RC repair in patients with DM and secondary adhesive capsulitis remain uncovered.

In the study of J.Y. Park et al., it is indicated that the results of selective capsulotomy in combination with the RC repair in patients with diabetes were better than the results of the supraspinatus tendon suture without selective capsulotomy, however, this study was conducted on only 15 patients and needs to be continued [13].

The strengths of our study is that in our work we evaluated the results of selective capsulotomy of the shoulder joint both by the objective scale (Constant Shoulder Score) and by the subjective scale (VAS); we managed to create statistically identical study groups which are clearly determined by the type of diabetes, age, and size of the supraspinatus tendon rupture.

The weaknesses of our study is that we did not take into account the specific level of blood sugar before surgery and during rehabilitation in our patients, the lack of control over the exercise during rehabilitation program. Also, we did not take into account other concomitant pathology (coronary heart disease, hypertensive disease etc.), which can negatively affect the rehabilitation of patients.

5 Conclusion

Patients with type 2 diabetes who underwent supraspinatus tendon suture and selective capsulotomy had better average functional results 3 months after surgery on the Constant Shoulder Score and VAS scale (p=0.33). Six months after surgery, the Constant Shoulder Score results were almost the same in the two groups, but the VAS pain syndrome level in the group that underwent selective capsulotomy was better (p=0.5).

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J INDUSTRY

REDUCING THE POLLUTION OF THE AIRSPACE OF THE CITY'S MAIN HIGHWAY AREAS

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Abstract: The article deals with problems of air pollution in large cities and how to solve them. In Europe, road transport produces nearly half of NO_x emissions, which ensures urban air quality. Analysis of reference data has revealed scientists' active interest in reducing air pollution in large cities. However, since the objects of territorial planning continue to develop dangerously, one can speak of the absence of a sufficiently compelling concept of architectural and urban planning to ensure the environmental safety of the air basin of urban areas. Therefore, we propose to consider the object of the research and protection as systemic integrity of three entities: areas near trunk roads, air basins, and population. The paper presents an ER model of the research object and determines the main parameters of each entity, their interrelationships, and the action area. We propose an engineering and planning solution for installing special units to remove the most dangerous admixtures of nitrogen oxides and dust from the air basin near the city trunk roads through ozonation and absorption. The basis of the proposed treatment plant is a scrubber with combined processes of wet dust collection and ozonation characterized by high efficiency in removing fine dust and nitrogen oxides. The work presents a process flow diagram of purification and determines the operating conditions of the equipment. To substantiate the unit's operational safety in an emergency with ozone emission, we have simulated the process of ozone dispersion in the surrounding areas.

Keywords: Airspace, Air pollution, Engineering solution, Highway areas, Urban air quality, Urban planning.

1 Introduction

In 2015, environmental pollution caused approximately 9 million premature deaths worldwide (16% of all deaths), which is three times more than deaths from AIDS, tuberculosis, and malaria combined, and 15 times more than from all wars and other diseases [3]. Ukraine took 43rd place out of 92 countries provided official information in the World Air Quality Ranking $PM_{2.5}$ in 2020 [19].

In Europe, road transport produces almost half of NO_x emissions, so it plays a key role in ensuring air quality in cities [14]. The average annual values of nitrogen oxide concentrations in urban conditions are 20-90 $\mu g/m^3$, and the hourly maximums are in the range of 75-1015 $\mu g/m^3$, while at the intersections with heavy traffic during traffic jams NOx concentrations are several times higher (especially in 'urban canyons' where the road is narrow and buildings are tall). When exposed to sunlight, NO_x together with volatile organic compounds produces secondary pollutants that are more hazardous to health and the environment. The lifetime of NO_x is about a day. Some NO_x interacts with moisture and turns into HNO_3 producing acid precipitation. Some NO_x produces mineral salts in the form of dust with an aerodynamic diameter of fewer than 2.5 microns. The presence of NO_x in the air is one of the main reasons for photochemical smog. Ozone and nitrogen oxides have poor solubility in the mucous membrane. Therefore, they are almost freely transported to the lower respiratory tract with the inhaled air, where they cause inflammation and oxidative stress.

To reduce damage to the natural environment due to eutrophication of water bodies, acidification of soils, the formation of ground-level ozone, and depletion of the stratospheric ozone layer, The United Nations Economic Commission for Europe signed The 1988 Sofia Protocol and The 1999 Gothenburg Protocol on the reduction of anthropogenic NO_2 emissions.

Analysis of reference data has revealed an active interest of scientists in the state of air quality and its relationship with health risks.

The authors of the article [9] have studied the level of air pollution with particulate matter in 56 largest cities of the world (with a total population of 608 million people) based on data from The WHO monitoring, atmospheric modelling, satellite remote sensing, and surface monitoring data. They have found out that at least 96% of the population of these cities are exposed to $PM_{2.5}$ in concentrations higher than those recommended by The WHO. Notably, cities with the highest levels of pollution are in low-income countries.

Spanish researchers note [10] that a high level of NO_2 is quite frequent in Spanish cities causing annual mortality (6085 deaths) due to natural causes. At the same time, the impact of NO_2 on daily mortality is three times higher than that of PM, and daily mortality associated with circulatory causes is twice as high as that from respiratory causes.

Chinese scientists have summarized the publications of different authors on the impact of air pollution on public health by analysing space-time series, cohort, panel, and cross-sectional studies. They have concluded [1] that most of the data show a positive relationship between the concentrations of PM, SO_2, NO_2 and an increased risk of mortality. SO_2 and NO_2 in the environment may be high-risk factors for sudden infant death syndrome. NO_2 is the cause of hospitalization because of respiratory and cardiovascular diseases with exacerbation of asthma in children. There is also a clear impact of NO_2 on the frequency of viral infections among asthmatics. Children, the elderly, asthmatics, and people with chronic obstructive pulmonary disease are more sensitive to the effects of ozone. However, risk assessment of ozone-related mortality is higher in the warm season.

The article [12] assesses the risks of threats to the health of the population of Kyiv from 2005 to 2017 based on the developed modelling software complex for solving the problems of environmental pollution in the technogenic-loaded territories. Risk analysis has shown that most of the territory of Kyiv is characterized by increased values of risks (both chronic intoxication and reflex effects) that differ across city districts indicating the instability of the atmospheric air quality in Kyiv. At the same time, the lowest risk values have been found on the territory of Hydropark (park complex), and the highest have been observed on the Bessarabska Square and Maidan Nezalezhnosti (the city centre with heavy traffic).

The work [2] has studied the level of pollution with the main pollutants (NO_x, O_3, SO_2, CO, PM_{10}, $PM_{2.5}$, C_6H_6) over five years in 5 cities (> 50,000 inhabitants), five towns (5,000-50,000 inhabitants) and five villages (<5000 inhabitants) in Central Europe based on data from 15 automatic stations. The authors have found out that air quality varies greatly for different settlements, for different seasons, and during the day from 08:00 to 09:00 a.m.

The studies [11] carried out in India have shown that there are distinct seasonal variations in the concentrations of O_3 and NO_x with a maximum observed in winter and a minimum during the rainy season. As for daily variations, the concentration is higher at night than during the day. In this case, the correlation coefficient of 0.52 for the O_3 and $[NO_2]/[NO]$ ratio indicates the role of photolysis of NO_2 producing ozone in this place.

Chinese scientists [17] note that seasonal and average daily variation of NO_x concentration in Changchun has a bimodal distribution, which is higher in autumn and winter than in spring and summer. The daily change in NO_x concentration peaks first at 07:00–08:00 a.m. and then between 8:00 and 10:00 p.m. At the same time, there is a positive correlation of NO_x concentration with NO_2, NO, $PM_{2.5}$, PM_{10}, CO, and pressure, while a significant negative correlation is with O_3, temperature, wind speed, and humidity.

Work [13] assesses the concentration of NO_2 and NO_x on roads using data from the monitoring network of adjacent roads. Average and maximum NO_2 concentrations on roads are 33 and 105 ppb, respectively, with higher concentrations with winds

perpendicular to the road rather than parallel. The NO_2/NO_x ratios ranged from 0.25 to 0.35, which is significantly higher than the expected tailpipe emission ratios.

Thus, due to the increasing negative anthropogenic impact of urbanization on people taking into account the concept of zero pollution within the framework of the EU's Circular Economy Action Plan by 2050 [6], the issues of environmental protection of the urban environment and natural ecosystems are becoming increasingly acute indicating the importance and relevance of the problem raised.

2 Materials and Methods

A scrubber is the main equipment. It is a device for wet air purification, which structurally consists of a section for contaminated air inlet, a working chamber, a nozzle block, a recirculation system, a cuttings chamber, and a gas removal section.

The main gases used as a working medium are nitrogen monoxide, nitrogen dioxide, and ozone.

Nitric oxide (NO) is a colourless, odourless, and tasteless gas, non-flammable, and with low water solubility (4.6 ml/100 ml of water at 20°C) that oxidizes to NO_2 in air. The melting point is 164.4°C; the boiling point is 152.2°C. Vapours are heavier than air. It is very toxic when inhaled and absorbed through the skin. The low odour threshold is 0.36 mg/m^3; the strong odour threshold is 1.2 mg/m^3.

Nitrogen dioxide (NO_2) is a reddish-brown highly toxic gas with a sweetish, pungent odour. The melting point is 11.2°C; the boiling point is 21.2°C. It reacts with water. The low odour threshold is 2.0 mg/m^3; the strong odour threshold is 10.0 mg/m^3.

Ozone (O_3) is an explosive pale blue gas with a characteristic pleasant odor that resembles chlorine at high concentrations. The boiling point is 112°C; the melting point is 193°C. The smell is noticeable even at a dilution of 1:100,000.

Oxidation of nitric oxide by ozone proceeds completely according to the reaction (1)

$$NO + O_3 = NO_2 + O_2, \qquad (1)$$
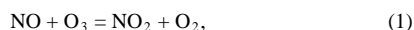
followed by chemisorption by irrigated water according to the reaction (2)

$$3NO_2 + H_2O = 2HNO_3 + NO, \qquad (2)$$
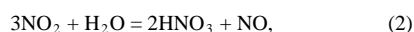
where the degree of interaction is 90%.
In modelling ozone dispersion profiles, the Gaussian mixture model algorithm is used, which is the most common in air dispersion analysis modelling. It is based on the assumption that the pollutant will spread according to a normal statistical distribution. When implementing the model, some simplifications have been made, i.e., the emission concentration does not affect the rarefied flow; molecular diffusion and longitudinal diffusion (along the wind direction) are negligible; turbulent flows are linear; lateral average wind speed and vertical wind speed are zero, ideal for an underlying surface.

3 Results

Under modern economic conditions, many large cities are unable to quickly and effectively improve the quality of atmospheric air by re-planning territories (e.g., building interchanges, bypass roads, redesigning cities as for landscaping, arranging pedestrian zones, bicycle paths, etc.) or adopting unpopular decisions (bans or restrictions on traffic in the city centre, penalties, etc.), since this requires large investments in urban transport infrastructure and hinders the sustainable existence and development of society. In addition, the transition to green energy and the use of electric vehicles cause difficulties and high economic costs.

Currently, there are different proposals for protecting the air basin, especially in large cities. The authors of [7] consider the possibilities of promising architectural design of highly urbanized areas using TiO_2 nanoparticles as a component of construction materials such as concrete and gypsum, or a component of active membrane tissues. They are activated by UV radiation and neutralize various atmospheric pollutants, especially acidic gases due to photocatalysis. However, this is applicable for newly built communities and does not fully solve the problem of air purification.

An article by Korean researchers [5] describes the development of a system of artificial soil-plant and electrostatic filters for air purification from fine particulate matter in the urban environment, especially in hot spots. Due to plant leaves, the filter based on multi-layered different artificial soils has an efficiency of 78.5% for $PM_{2.5}$ and 47% for PM_{10} at the incoming airspeed of 0.15 m/s.

The modern European market has ready-made solutions for removing pollutants and viruses from urban and indoor air using biotechnology, fine filtration, UV irradiation, and air ionization.

For example, U-Earth [https://www.u-earth.eu/products] has developed a bioreactor that neutralizes viruses, volatile organic compounds, and fine particles. However, such an air purifier needs to be refilled every 30 days with a special mixture of biotechnological bacteria and enzymes.

ENS has developed the Clean Air technology [https://www.ens-cleanair.com] to remove dust, soot, and other contaminants from the air without using filters. In this system, fine dust particles are positively charged and move to the negatively charged collector plate, where they adhere to the surface. Unfortunately, this solution does not solve the problem of removing gas pollutants from the air.

The British company Airlabs [https://www.airlabs.com] offers devices based on a chemically modified nanocarbon filter for capturing and destroying ozone, nitrogen oxides, and volatile organic compounds. However, it operates in confined spaces (premises, transport).

The German developer Purevento [https://www.purevento.com] offers mobile containers for removing fine particles and nitrogen oxides in a synchronized four-stage filter element treating up to 60,000 m^3 of air per hour with an efficiency of 85%. This solution requires replacement and disposal of filters.

The Italian company Is Clean Air [https://www.iscleanair.com] has presented the APA technology to reduce industrial emissions, which can be used outdoors and indoors to remove particulate matter, heavy metals, hydrocarbons, pollen, spores, NO_x, SO_x, CO_2 from the air within a radius of 25 m. It uses centrifugal force and water in combination with UV treatment with consequent water-based waste. Compared to other systems, filterless technology significantly reduces the cost of production and system maintenance.

Another Italian company Airlite [https://www.airlite.com] offers interior and exterior paints that use photocatalytic properties of mineral components to neutralize pollutants such as formaldehyde and nitrogen oxides (88% efficiency) when exposed to light, and to prevent the growth of bacteria, mold, and spores. At the same time, the produced salts are fixed on walls. However, reactions only take place on the surface leaving contaminants in the air.

The Dutch project (see the following link on the project: https://www.studioroosegaarde.net/project/smog-free-tower) called The Smog Free Tower is a 7-meter high aluminium tower with positive ionization technology that purifies 30,000 m^3/h of air and uses a small amount of green energy. This project has already been launched in China, South Korea, the Netherlands, Mexico, and Poland.

However, despite the variety of treatment facilities and protective materials, many problems of maintaining clean air have not been resolved yet. Therefore, they require an urgent solution to reduce the negative impact of urban road transport emissions on the health of population of urbanized areas and the environment. We propose a conceptual model of the transition to clean air in urbanized areas shown in Figure 1, according to which it is necessary to solve the triune problem of coexistence and protection of:

- A person who seeks to live comfortably that requires constant progress, and at the same time preserve their main treasure, i.e. health;
- Transport, which is associated with the need to quickly move goods and services requiring sustainable economic development and leading to climate change;
- The environment, the state of which is deteriorating against the background of intensification of natural disasters due to anthropogenic influence.

Figure 1. Conceptual Model of the Transition to Clean Air in Urbanized Areas

The research objective was the systemic integrity of three entities, namely, areas near trunk roads, air basin, and population.

The purpose of the work is to propose an engineering and planning solution for purifying the air basin in areas near trunk roads of large cities within the framework of the conceptual model of the transition to clean air in urbanized areas.

The basis of the proposed treatment plant is a scrubber with combined processes of wet dust collection and ozonation characterized by high efficiency of removing fine dust up to 2 microns in size. It operates using the principle of dust particle settling on the surface of droplets under inertial forces or Brownian motion, and nitrogen oxides (acid gases). It is a vertical, hollow stainless steel unit with a grate at the bottom. A layer of nozzles is laid on it to uniformly distribute the gas flow over the cross-section of the unit and to increase the degree of absorption. A mist extractor is placed in the upper part of the unit to avoid drop entrainment. Purified air enters the atmosphere at a height of over 3.5 m. The irrigation water is supplied in the counter-current to the gas flow by means of several rows of radially placed nozzles. Ozonized air is supplied through the side connection. Filters for coarse air purification are placed on the air intake connections. The body is made with noise reduction, lightning and vandalism protection.

The scrubber works periodically, turns on automatically when the sensor is triggered indicating that the NO_x concentration in the air exceeds The WHO recommended value [18], or it can be controlled remotely upon request.

In the place of direct installation of the unit, access to tap water, power supply, and sewerage is required.

Absorption is highly effective for purifying gases with a noticeable concentration but it is also possible for gases at low concentrations, when a gas is highly soluble in the absorbent. Since purified air is a gas with low concentration and low oxidation (NO content is up to 80-90%), it is poorly absorbed. To ensure better absorption of NO_x, it is necessary to oxidize

NO to NO_2 by at least 55%. Therefore, ozone is supplied to the scrubber.

To make quantitative calculations of the process, including the consumption coefficients for ozone and water (per one m3 of purified air), the concentration of NO_x in the atmospheric air is considered in the range of 0-1 mg/m^3 [16]. The share of NO_2 in NO_x emissions is usually up to 20% [8]. The purifying efficiency in the ozonized scrubber reaches 75-80%, the productivity is 2500 m^3/h, and the residence time in the unit is 6-7 seconds [15]. The volume of water supplied for irrigation is determined taking into account the dilution of the produced nitric acid to pH = 5.5, which makes it possible to send wastewater to the city sewage system according to the rules for receiving wastewater into it.

Figure 2 shows the dependences of the amount of ozone required for NO oxidation and water for irrigation of the scrubber on the initial content of nitrogen oxides in the purified air.
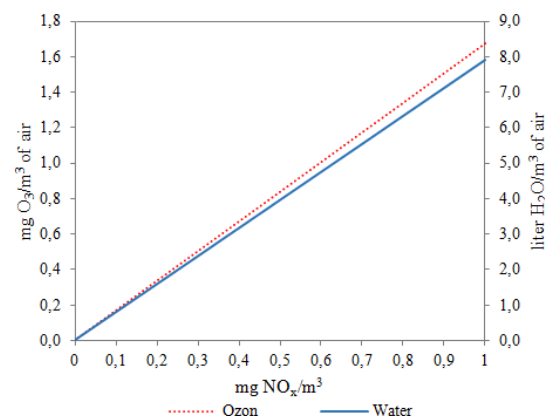

Figure 2. Consumption of Ozone and Water Depending on the Content of NO_x in one m^3 of Purified Air

To purify air with an initial NO_x concentration of 0.5 mg/m3, about 2.1 g of O_3/h is required, which is provided by an ozone generation unit with a capacity of 3 g/h. Unreacted ozone will reach 0.9 g/h, 0.279 g/h of which will dissolve in the irrigation water (solubility coefficient is 0.31 at 20ºC [4]). The rest will be carried away by exhaust air. To ensure the concentration of ozone at the level of standard values, a catalytic ozone destruction unit is placed in the gas outlet pipe at the scrubber outlet. The hourly water consumption will be about 10 m^3.

Recycling can be used to reduce water consumption. Automatic control of the supply of material flows (air, ozone, and water) according to a specific local pollution scenario will reduce consumption expenditures. Depending on the degree of air pollution in the predetermined urban locations, it is planned to place units of various capacities.

Thus, the proposed engineering and planning solution for the use of special units will allow purifying the air basin near the city trunk roads by removing the most dangerous admixtures of nitrogen oxides and dust by physicochemical methods. It should be noted that, in comparison with the known analogues, the unit is not difficult to maintain with sufficiently effective air purification in a short period. The economic efficiency of using purification plants in urban systems will be primarily manifested in reducing medical costs for the treatment of vulnerable groups of the population (children, the elderly, as well as people suffering from asthma, allergies, and immune system disorders).

4 Discussion

The objects of territorial planning continue to develop dangerously; therefore, one can speak of the absence of a sufficiently effective concept of architectural urban planning to ensure the environmental safety of the air basin of urban areas. Therefore, we propose an ER model consisting of three entities,

namely, areas near trunk roads, air basin, and population. Table 1 presents its infological model. For each entity, the main parameters, their interrelationships, and the action area are determined. The main parameters for areas near trunk roads are the number of vehicles moving along this road, emissions of harmful substances into the environment, and the distance from the treatment plant to the trunk road, from the trunk road to the building. These parameters are linked to other parameters by basic links such as displacement, dispersion, and arrangement. Air basin and large cities are the main areas for using protective structures.

Table 1: ER Model of the Research Object

Object	Parameters		Action	Area
	Name	Description		
Areas near trunk roads	Traffic	the number of vehicles moving along the given trunk road	Displacement	Large cities
	Emissions	release of harmful substances into the environment	Dispersion	Air basin
	Distances	the distance from the treatment plant to the trunk road, from the trunk road to the building	Arrangement	Large cities
Air basin	Weather Conditions	a short-term special combination of meteorological factors	Displacement	Air basin
	Pollutants	an anthropogenic agent that enters the environment in quantities exceeding the values established by The WHO	Dispersion	Air basin
	Building	arrangement of buildings and structures	Arrangement	Large cities
Population	Health	a natural state of the body characterized by its balance with the environment	Displacement	Air basin
	MAC	maximum allowable concentrations	Dispersion	Air basin
	Density	the number of inhabitants per 1 km² of the territory	Arrangement	Large cities

A process is shown on flow diagram of the polluted air purification consisting of four steps, at each of which the main components are determined in Figure 3. Atmospheric air monitoring to determine the content of pollutants (nitrogen oxides and dust) and environmental parameters is carried out continuously. If the specified values are exceeded, the next step takes place, i.e., chemical and mechanical air purification is started, material flows are supplied. The main components of this step are the site of the treatment plant location, the treatment equipment. The third step is the disposal of wastewater into the sewerage with the determination of the pH scale to control the disposal. The final step is the control of the exhaust air with the determination of the content of ozone and nitrogen oxides. The process is automatic and regulated by the level of air pollution.
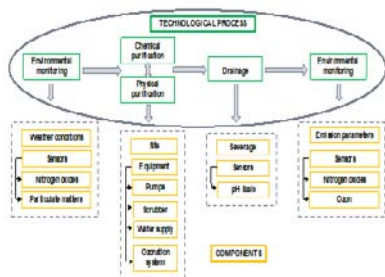

Figure 3. A Process Flow Diagram of Purifying the Air Basin of Areas near Trunk Roads with the Corresponding Components

The main conditions for the operation of the treatment plant (including restrictions) have been determined:

- The level of air pollution exceeds the maximum allowable concentrations;
- Availability of utilities such as power supply network, water supply, sewerage;
- Urban planning indicators, namely, building lines, planning requirements at different types of intersections;
- Weather conditions such as low temperatures, strong wind, rain, thunderstorm, snow;
- The ozone concentration level at the outlet exceeds the maximum allowable concentrations.

To take into account the emergency with ozone emission from the unit, we have carried out the modelling of ozone dispersion in the surrounding area shown in Figure 4. The following parameters have been taken into account during modelling:

- Emission height is 3.5 m;
- Wind speed is 1.25 m/s;
- Background pollution is conventionally assumed to be zero;
- The OX axis is oriented in the direction of the wind, the OY axis is perpendicular to the OX axis;
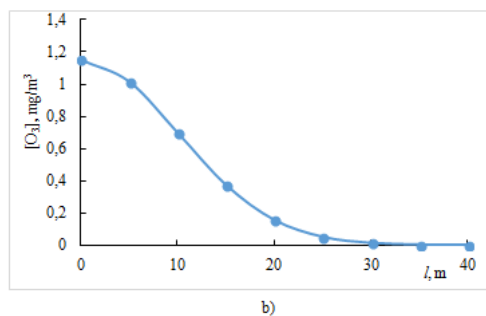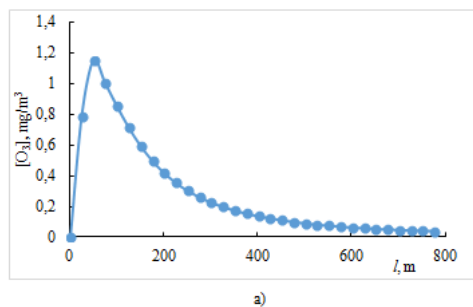- Mass of ozone emitted into the atmosphere is 3 g/h.

a)

b)

Figure 4. Ozone Dispersion Profiles in the Surrounding Area: a) along the OX Axis; b) along the OY Axis

When there is one source of emission, the main parameter is the calculated maximum concentration, which is predicted for cases where a dangerous wind speed is expected in the lower atmosphere. The obtained dispersion profiles make it possible to optimally determine the rational and most economical set of measures that ensure the necessary purity of the air basin, to establish the measurement of the emission parameters, the concentration field.

According to the obtained profiles of the dispersion of ozone leaving the unit, one can see that the maximum concentration along the OX axis (the wind flow) will be at a distance of 50 m from the emission source decreasing to the permissible value at distances of about 500 m. At the same time, with transverse dispersion along the OY axis (perpendicular to the wind flow) the standard value is at a distance of 30 m.

We should note that dispersion of the maximum possible ozone emission in case of an emergency, shown in Fig. 4, does not take into account the active rapid decay of ozone and its interaction with air impurities. In addition, the unit is equipped with an ozone concentration sensor, and if the standard values are exceeded, the ozone generator turns off.

5 Conclusion

The objects of territorial planning continue to develop dangerously; therefore, one can speak of the absence of a sufficiently effective concept of architectural urban planning to ensure the environmental safety of the air basin of urban areas. We propose to consider the object of research and protection as a systemic integrity of three entities, namely, areas near trunk roads, air basin, and population. The paper presents an ER model of the research object and determines the main parameters, their interrelationships, and the action area for each entity.

Based on the conducted studies, we propose an engineering and planning solution for using special facilities for removing the most dangerous impurities of nitrogen oxides and dust from the air basin near the city trunk roads through ozonation and absorption. The research determines the operating conditions of the unit and presents a process flow diagram of purification. To take into account the emergency of ozone emission, we have carried out the modelling of ozone dispersion in the city.

At this stage, the proposed solution for non-regenerative air purification in urbanized areas requires small investments and fits into the linear economy model. However, according to the Concept of Zero Pollution by 2050 within the framework of the EU's Circular Economy Action Plan, such an approach is undoubtedly promising.

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Primary Paper Section: J

Secondary Paper Section: CI, DI, JM, JN

K   MILITARISM

KA   MILITARISM

THE IMPACT OF THE 4.0 TECHNOLOGICAL REVOLUTION ON THE HYBRID WAR OF THE RUSSIAN FEDERATION IN UKRAINE

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Abstract: The authors analyze the impact of the 4.0 technological revolution on the development of russia [1] hybrid war in Ukraine. The article examines the confrontation in frames of 4.0 technological revolution during the Fourth Generation Warfare (4GW), characterizes the hybrid warfare types and the impact of 4.0 technological revolution on each aspects. It is proved that hybrid warfare occupies an important place in the state domestic and foreign policies. Now it is gaining new importance in the information age. It is noted that, due to the development of new technologies, hybrid wars have become one of the most effective methods in achieving the goals. The modern hybrid war of the Russian Federation against Ukraine is monitored. It is emphasized that the formation of a single global information space, being a natural result of the world scientific and technical thought development as well as the improvement of computer and information technology, creates the preconditions for the development and use of information weapons. Both an effective information weapons possession and means of protection against them is becoming one of the main conditions for ensuring the national security of states in the 21st century. It is an instrument in the Russian-Ukrainian confrontation. The created information troops in Ukraine have become a community of active Ukrainians united to protect Ukraine from aggressive information propaganda of russian special services and to monitor information provocations against Ukraine, the russian media lies, and counter-propaganda spread.

Keywords: Hybrid war, 4.0 Technological revolution, Ukraine, russian federation, Misinformation, Manipulation, War.

1 Introduction

The relevance of the topic is determined by the fact that information can simultaneously contribute to stability in the state, its socio-economic and political development, but also pose a threat to the national interests of the state. Digital technologies are entangled in the structures of society. The dynamics of information transfer has changed greatly. Klaus Schwab claimed in 2016 that we are already facing artificial intelligence such as autonomous machines, drones, virtual assistants, translation programs, and advisor programs. The constant growth of computing power and ever-increasing amounts of data have allowed making increasingly more breakthroughs in the creation of artificial intelligence over the past few years: there are programs that develop new drugs, new algorithms and predict new trends in culture [24].

A significant percentage of the world population today uses social networks and media to communicate, learn and disseminate information. This should strengthen intercultural ties and cooperation, but freedom of information also leads to rising unsupported expectations, a lack of understanding of success criteria for groups and individuals, and the spread of extremist ideas and ideologies. In the current conditions of the Russian-Ukrainian war, Ukraine should take a more careful and balanced approach to protect the national information space, in particular, to take care of information hygiene. That is why strategic communications of the state as sovereign, democratic, legal as well as economically stable member of international relations are to be directed to assure national information security of all subjects to information relations and to institutionalize the process of keeping information hygiene. The special situation needs rapid and effective decisions in a course of the hostilities that are currently underway in Ukraine and represent the result of russian aggression.

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[1] Since February 24, 2022 spelling of words «russian federation», «russia», vladimir putin in lowercase letters is common in Ukraine to emphasize the contempt to the aggressor and occupier.

2 Materials and Method

To solve a set of tasks, the following approaches such as interdisciplinary, complex and system-synergetic ones considering the modern paradigm of national information security in dialectical unity with the state information policy and introduction of an effective system of strategic communications at micro-, mezzo- and macro-levels are used. The chosen methodology of conducting the investigation combines and applies the following methods and approaches such as network analysis, systematic, integrated and civilizational research approaches, system analysis, systematization and classification methods as well as analysis of synthesis, objectivity, generalization, analogy, case-study, and others. The integrated approach fostered the identification of information intervention trends and patterns, anticipation of the consequences and possible developments of political events taking into account the peculiarities of geopolitical rivalry. The structural and functional approach involves research in terms of the interconnectedness of the elements that make up its structure and the functions inherent in all elements. Political-system analysis provided an opportunity to explore comprehensively the political space as a system of communicative relations.

The authors of the article are scholars of the International Relations Faculty at the Lesya Ukrainka Volyn National University and have long studied the impact of the 4.0 technological revolution on the development of Ukraine and Ukrainian foreign policy. In 2012-2014, they conducted a research "Information and Communication in the Modern World" (State Registration No.112U001779). In 2013–2015, the research topic was "Information Support of Cross-border Cooperation in Ukraine (State Registration No. 0113U002221), in 2018–2019 – "Information War as a New Dimension of Geopolitical Rivalry" together with the Institute of Security Sciences at the Krakow Pedagogical University) (State Registration No. 0119U001621). Currently, they are working on the topic within the Scientific Research Work "Information Hygiene as a Direction of National Security" (State Registration No. 0120U104944).

3 Results and Discussion

4.0 Technological Revolution vs Fourth Generation Warfare (4GW)

Technologies that have emerged at the intersection of the physical, digital, and biological worlds have led to the creation of new platforms through which citizens can communicate their views to the government, coordinate actions, and even avoid the attention of the authorities. At the same time, states have gained new tools to control the population based on a widespread surveillance and power over the digital infrastructure. The ability of states to change has become a matter of the survival. If they accept a new, transparent, ever-changing world, they will survive. By refusing to change, they doom themselves to growing internal conflicts. The fourth industrial revolution accelerated development so much that the old methods of regulation simply do not keep up with the current and new technologies today.

Currently, we can say with confidence that the 4.0 technological revolution gave rise to the Fourth Generation Warfare (4GW), to a conflict characterized by blurring the distinction between direct warfare and politics, between the military and civilians involved [22]. The idea of the Fourth Generation War was originated during the Cold War when the Soviet Union and the United States realized that large-scale use of tanks, aircraft, and missiles in these conditions is ineffective in the struggle for presence in different parts of the world. The role of guerrillas and various political, economic, financial, informational and psychological subversive operations has increased dramatically. In 1989, the American military expert W. Lind introduced the 4GW concept.

He believed that the Fourth Generation War was characterized by decentralization and the disappearance of the state's monopoly on war. This is what makes it possible to return to the war of cultures when immigration and multiculturalism create the preconditions for a war of identities [22].

Such war type is considered effective in terms of "cost-benefit". In 2014-2022, russia did not invest huge sums in large-scale war, but used various latest subversive tactics to force the victim country to constantly exhaust its military, financial resources in the course of continuous and constantly externally fueled guerrilla warfare and terrorist activities. At the same time, the socio-economic chaos in the country was purposefully initiated to intensify psychological and informational pressure on Ukrainians and to push the undesirable power as the aggression object to be ready to surrender and leave.

Technological breakthroughs have potentially reduced the risk of hostilities by creating defense systems or increasing the accuracy of weapons. Namely during the Russian-Ukrainian war, unmanned aerial vehicles are used (or "drone" referring to an aircraft platform with additional equipment, that can be used interchangeably with terms such as BSP (drone), UAV (unmanned aerial vehicle)), which are designed to collect and provide information using on-board devices. They can be controlled from anywhere through using existing communication technologies (radio, microwave, satellite, optical, etc.). They can move along a predetermined route or between certain points with different levels of autonomy (independent choice of route, avoiding designated areas, identifying and avoiding both natural and civil threats, and others). Depending on the installed equipment, drones can perform image recognition (photo, video, infrared or thermal imaging, radar), electronic (radio monitoring), and the collected information can be transmitted in real time via wireless lines for operators, headquarters, and operational departments in the area. They are so small in size that they can start directly from the ground or small pneumatic launchers as well as the operator's ejection. Their main task is to monitor and track them in real time, so they can support the operation of the battalion in the given area [15; 23].

Increasingly, the 4.0 technological revolution is leading to asymmetrical warfare as a war characterized by significant differences in military power or the ability of participating countries to use strategies and tactics. In such a conflict, the resources of both sides differ significantly and during the struggle, the opponents try to use each other's characteristic shortcomings [22]. In 2001, the US Institute for Strategic Studies defined "asymmetry" as a strategic concept in the military and national security and the ability to act, organize, and think differently from opponents in order to maximize one's own strengths and vulnerabilities, seize initiative, or 'conquire' initiative space for maneuvering. Andrew Mack introduced the term "asymmetrical war" in 1975 in the article "Why Great Nations Lose Small Wars?" in magazine "World Politics". The word "asymmetrical" was simply explained as the significant difference in strength between the various parties to the conflict ("strength" in such sense meant material force such as a large army, the latest weapons, a developed economy, etc.). In the 1990s, the special research was conducted based on the E. Mack concept. The U.S. military has been conducting a thorough analysis of the asymmetric wars issues since 2004. The traditional war involves at least two professional armies with roughly the same experience, resources, and technology. The only real difference is how they implement their strategies. Such a war is called symmetrical, because both sides are essentially the same. For example, when the Allies fight against the Axis powers, it was a conflict between professional, national armies that were mostly similar [16].

An information warfare as variety of modern wars is a form of information confrontation between different actors (states, non-governmental, economic, and other structures). It involves an implementation damage complex to the information sphere of the competing party and protection of own information sphere, as well as actions taken to achieving information advantage by

harming information processes based on the very information and the information systems of the enemy while protecting own information [15; 23]. Blocking or distorting information flows and decision-making processes of the enemy are the main methods of information warfare [27]. The Chinese military leader Sun Tzu was the first to use the term "information warfare" in 1985. He attempted to generalize the experience of informational influence on the enemy. The concept of "information warfare" was introduced into scientific use by the American researcher M. McLuhan.

NATO uses the term iWar (information warfare) to describe a form of cyber warfare involving attacks on the Internet that target consumer Internet infrastructure, such as websites that provide access to online internet banking services. In this sense, iWar is different from cyber warfare, cyberterrorism, information warfare, or information warfare involving the use of computers, the Internet, and other means of storing or disseminating information to attack enemy information systems by using teleinformation systems and networks relating to communications control by access to military and critical infrastructure, electronic espionage, and battlefield command and control. The communications networks and satellite reconnaissance are their battlefields [12; 31].

Researchers [6] have identified the following five characteristics of iWar indicating that it can revolutionize conflict such as the potential for expanded offensive action, geographical coverage, difficulty of exposure (recognition), ease of spread and impact on "ready" goals. These qualities suggest that the advent of iWar could mean a new military revolution along with the invention of gunpowder or the atomic bomb.

One of the main information warfare objects is ideological and psychological environment of society associated with the use of information. Information resources and information infrastructure influence the psyche and behavior of people as well as resources that reveal the spiritual, cultural, historical, national values, traditions, heritage of the state, and nation in various spheres of society. Information infrastructure - namely all intermediate links between information and people and a system of public consciousness formation - is viewed as information warfare object too together with a system of public opinion formation and a system of development and decision-making, human consciousness and behavior.

Psychological warfare, cyber warfare; network war, ideological war, electronic warfare as types of information warfare can manifest in the following ways when television and radio broadcasting can be suppressed: television and radio resources are seized for misinformation; communication networks are blocked or inaccessible; stock exchange operations are sabotaged by means of electronic interference through information leaking or spreading misinformation [19].

Media warfare being a type of information war can be considered in two aspects. The former is a phenomenon of negative attitude in the media audience to the enemy (subject of international relations or participant in the political process within the country). The latter is the widespread use of media as a factor influencing the enemy to achieve the necessary political or military advantages and encouraging the adoption of favorable decisions for the initiator of the information impact, to affect human consciousness resulting in performance of the necessary actions [20]. Media war is a form of war lasting unofficially, even in clearly peaceful conditions. Each country tries to make the most of the media to achieve its political goals. The main "soldiers" of the media war are publicists, international propaganda experts and media agents. Media war requires closer cooperation and coordination from the country's military, political, information, security, media and advertising sectors [13].

The main goal of the media war is to create chaos when it becomes unclear who is a friend, who is an enemy, who has won the war and who has lost. The typical war methods are hiding real events and the real state of affairs and taking phrases out of

context followed by focusing on them. It is achieved through identification of negative aspects of a certain phenomenon with the phenomenon itself and its essence and hanging label. One of the methods is defamation, namely insult or ridicule of a person, people, emphasizing the personal traits of the opponent, spreading gossip, rumors, etc. It also includes involvement of persons in the situation which they are not involved in at all, suggesting to the opponent feelings of anxiety, depression, sometimes leading to complete despair and suicide [17].

Unresolved domestic problems and the desire to unite the country's population against an external enemy are often the main causes of media warfare, thereby diverting attention from domestic problems. Such type of war affects the mentality and behavior of people, stimulates radical sentiment in society. The main means of media war are radio, television, websites, the press. Hybrid warfare is known to have no rules. The tactics are flexible and are planned under the strategy of information war rather than frontal warfare, where an alternative reality is built, within which it is possible to turn an opponent into an enemy. The main and managing component of hybrid warfare is information warfare taking on today a new, modified form and emerging as a network-centric warfare. Under such concept, we understand the war of the new generation, in which the modeling and programming of the necessary processes in the enemy state is carried out by means of informational influence [4].

The object of network-centric warfare is mass and individual consciousness. Information influence can be carried out both against the background of information noise and in the information vacuum. Information and network warfare is built on the same principles as any advertising campaign, but its task is to 'sell' the idea of a hybrid aggressor. The attack is not aimed at the body, but at the soul of the enemy, because the strongest conflicts in human history, as it is known, were basically religious in nature. Therefore, network information warfare is a strong part of hybrid warfare [4].

Analysis of the most famous international military, political, and economic conflicts in the late 20th − early 21st centuries testified that information and psychological weapons as one of the means of hybrid warfare should be equated with weapons of mass destruction. Without killing physically, psychotechnologies become the cause of group as well as mass mental disorders that lead to social conflicts. Information impact on the population is carried out through various channels of information transmission such as the Internet, media, television, software, and more. Computers and information systems are affected by information warfare. In the information and psychological war, the informational direction is joined by the psychological one, in which the object of influence is individual and mass consciousness [18].

In the format of using the full range of information and psychological operations, social online networks have the opportunity to coordinate protest and terrorist movements. They are capable of dissemination of content related to information weapons, gathering important information of interest to the aggressor, tracking public sentiment and localization of information sources that pose a danger [14].

Thus, hybrid warfare occupies an important place in the domestic and foreign policies of states, and now it is gaining new importance in the information age. Due to the development of new technologies that have accelerated the spread of globalization processes and contributed to the creation of a single information space, information wars have become one of the most effective methods of achieving the goal. The use of information warfare as a means of geopolitical confrontation can be seen in the wars in the Persian Gulf, Chechnya, eastern Ukraine and Crimea, and Syria. Therefore, the study of this phenomenon in order to protect country' own information space and own position in the global space becomes especially relevant.

Modern Hybrid Warfare: Russian Federation vs Ukraine

The revolution 4.0 has changed the meaning of both national and international security. It affects the type of conflicts and their nature. A retrospective of military affairs and national security is a history of technological progress. Modern interstate conflicts are increasingly "hybrid"; they combine direct action on the battlefield with non-state phenomena and elements. The line between war and peace, soldier and civilian and even violence and non-violence is blurred [24]. Society information security is an unhindered implementation by society and its individual members of their constitutional rights related to the possibility of free possession, creation, and dissemination of information, as well as the degree of their protection from destructive information. Information policy is designed to promote information security as much as possible, namely the state activities and citizens in the field of production, dissemination, exchange, protection of information, its use in management processes. The greatest threat to today's information security in Ukraine is the hybrid war of the russian federation that is the war combining fundamentally different types and methods of conduct by ignoring the universal values and principles of modern warfare to achieve its goals.

Hybrid warfare is the result of hybrid dangers or threats created by the enemy with the intention and ability to use both traditional and non-traditional means of struggle and influence, depending on the urgent need to achieve enemy goals (according to the NATO Strategic Concept 2010). This is a concentrated, fully controlled and aimed at undermining and destabilizing the opponent, supporting guerrilla movements, covert invasion through the use of various (not necessarily limited to one form) open and secret tactics implemented by coercive military and non-military means (propaganda, disinformation, disinformation, disruption of communications, electricity supply, sabotage, etc.), due to information and economic pressure, the ultimate goal of which is not only to achieve full political influence, but also complete domination over the object - the victim country [3]. We see hybrid threats as a combination of coercive and subversive activities of traditional and non-traditional methods (diplomatic, military, economic, technological) that can be used in a coordinated manner by states or non-state actors to achieve specific goals, remaining below the threshold of formally declared war.

The "ancestor" of hybrid warfare, as well as modern hybrid threats, is the russian federation, especially regarding its illegal actions against Ukraine, as well as modernized ISIS operations that use a huge number of hybrid methods and means against a weakened state. Types and areas of hybrid threats are the following: terrorism, propaganda, organized crime, cybersecurity, piracy, resource scarcity, space, intelligence networks, political movements, speculation and manipulation of historical facts, legal wars, incitement to ethnic and ethnic conflicts. Today, hybrid threats are an effective and efficient tool for russia to change the current world order by regional and global leaders, which causes the significant pressure in the international arena [9].

The fact of Russia' use iWar methods (Hybrid war – does) is confirmed by the following factors: an atmosphere of negative attitude to culture and historical heritage in Ukrainian society is formed; public opinion and political orientation of the Ukraine population are being manipulated in order to create a state of political tension; destabilization of political relations between parties, associations and movements in order to incite conflicts, stimulate mistrust, suspicion, aggravate hostilities, struggle for power; provocation of social, political, national-ethnic and religious clashes; provocation, repressive actions by the authorities against the opposition; reducing the level of information support of government and administration; misleading the population about the work of state authorities, undermining their authority, discrediting their actions; undermining the international prestige of the country, its cooperation with other states; creation or strengthening of opposition groups or movements; discrediting the facts of the historical and national identity of the people; formation of preconditions for economic, spiritual, or military defeat, loss of

will to fight and win; undermining the morale of the population, reducing the country's defense capabilities and combat potential; causing damage to information and technical infrastructure.

According to Polish researcher O. Vasiuta, the "red thread" of the russian hydride war in Ukraine is the ideology of the "Russian World", which uses various tools to implement its ideology from creating influence in neighboring countries to limiting their sovereignty and establishing full control over their economic, political, informational, religious structures and historical, cultural, and linguistic policies. This is soft power, a form of gradual elimination of state independence. To achieve its goals, the Kremlin uses its attachment to energy resources, buys strategic objects of the chosen state, and seizes the main political levers of the state object of the "russian World". In addition, there is an extensive promotion of common benefits, and the fifth column is also used. "russian World" encourages constant instability within the chosen state, because on religious and ethnic grounds it calls for the fight against "inorodtsy/resident aliens" (people of other nationalities who are not members of the "russian World"), among whom there is the search for all existent troubles reasons, and firstly terrorism roots [28].

The Russian diaspora, cultural and educational foundations and unions are the main tools for implementing such ideology. In addition, it is planned to deepen the legal project of the "russian World". An active implementation of real political tasks is among the main directions of the concept, in addition to cultural and educational aspects, namely the development of russian diasporas, increasing their influence on public policy of the countries where they live, using russian-speaking societies as a tool to lobby the Kremlin. Such tasks conflict with the national security of other states [30].

We consider the following to be possible measures to prevent and overcome hybrid threats of the russian federation in the Ukrainian information space [29]: improving and raising public awareness of possible current threats, information on the stability of structures, data protection on the Internet, intensification of international cooperation in this field, development of relevant documents/regulations to prevent and respond quickly to such crises, constant and detailed cooperation with the EU and NATO since the hybrid threats are not limited to internal borders but involve cross-border networks or infrastructure. It is necessary to highlight the clear need to develop hybrid thinking, focusing on mental characteristics such as understanding the strategic context, holistic vision and approach to the operation, focusing on potential, covering the natural complexity of the operating environment.

Information Weapons in the Russian-Ukrainian Confrontation

The formation of a single global information space, which is a natural result of the development of world scientific and technical thought and the improvement of computer and information technology, creates the preconditions for the development and use of information weapons. Possession of effective information weapons and means of protection against them is becoming one of the main conditions for ensuring the national security of states in the 21st century.

Information warfare is characterized by information weapons namely a type of weapon, the main elements of which are information, information technology (including information technology impact technologies), information processes and technical means used in information warfare [21]. Information weapons should be understood as a set of organizational and technical influences on information systems, automated and automatic control systems, communication systems and networks, etc., carried out using systems and means of destruction, distortion, disclosure, theft, creation of false information. It is also represented by systems and means of overcoming protection systems, means of restricting or expanding access to information and resources of legitimate users, systems and means of counteracting and disorganizing the work of technical means, computer systems, systems and tools of information systems resource management [7].

The rapid transmission of large amounts of information is becoming a major challenge in the creation of modern control systems, the solution of which is associated with the development of space communications systems and the widespread use of fiber-optic lines. At the same time, such elements of the information infrastructure become the most vulnerable in terms of information offensive operations. Purposeful organization of such situations is a priority in the case of using information weapons in the course of offensive information warfare and achieving information superiority over the enemy. Effective counteraction to such actions of the enemy determines the purpose of defensive information warfare [25]. The main ways and methods of using information weapons of the russian federation against Ukraine are the following: damage to physical elements of information infrastructure (destruction of power grids, interference, use of special programs that stimulate the decommissioning of hardware and biological and chemical means of destruction of the element base); destruction or damage of information, software and technical resources of the enemy, overcoming protection systems, introduction of viruses, software and logic bombs; impact on software and databases of information systems and control systems in order to distort or modify them; threat or commission of terrorist acts in the information space (disclosure and threat of disclosure of confidential information about elements of national information infrastructure, socially significant and military encryption codes, principles of encryption systems, successful experience of information terrorism, etc.); seizure of media channels in order to spread misinformation, rumors, demonstrate power and bring demands to light; destruction and suppression of communication lines, artificial overload of switching nodes; influence on operators of information and telecommunication systems with the use of multimedia and software tools for subconscious information or deterioration of human health; impact on computer equipment of military equipment and weapons in order to disable them [5].

Use of Chatbots in the Russian-Ukrainian War

Chatbots are computer programs developed on the basis of neural networks and machine learning technologies that communicate using auditory or textual methods. They have become a help to solve the problem of information hygiene and security during the 2022 Russian-Ukrainian war. The Ukrainian Virtual Army is our superiority over an enemy who has nothing like it. russia is launching a million bots that spread messages on social networks, but cannot mobilize a million living people who will sincerely tell the world what they really see, experience, and feel. The information army has three important fronts:

-Global / Western. It is aimed to bring to the world the news of russia's attack on Ukraine, to voice Ukraine's needs and requests for help, to call for tougher sanctions and international isolation of the aggressor. In the first weeks of the war, Ukraine was already on the front pages of all publications and in the first stories of all news releases, but, unfortunately, over time, the world's attention will weaken. Letters, messages, and signatures on petitions will then be needed to hold such attention. Many resources have already been created for this, for example, We Are Ukraine, and multilingual Post to Stop War in Ukraine, Stop Russi Channel|MRIYA, UA Student Union.

-russian. It breaks the plans of the russian government, according to which society should exist in a fictional reality created by the Kremlin propaganda. Such front brings many disappointments to Ukrainians, as Russians are often hopeless.

-Ukrainian. It disseminates important and truthful information, I aimed at helping the government, the military and volunteers to work and coordinate, raises morale and quenchs panic. In a situation of constant stress, danger, uncertainty, healthy communication is helpful and necessary for people [8].

The "information army" that helps the regular army in cyberspace has also defended Ukraine against russia. Activists have created Telegram-bots, where one can "surrender" the enemy as well as volunteer or seek help with housing, medicine,

transport. The Ministry of Digital Transformation has compiled a list of useful chatbots during the war [2].

Bots where one can learn how to join the territorial defense, how to survive a civilian and what to do in a crisis situation are Dzhhut 2.0. Persha dopomoga /First aid/ explains what to do if one does not know or has forgotten the algorithms for emergency help in case of heart attack, stroke, cardiac arrest, and gives other advice on first aid. SaveUA is a bot to help in finding volunteers in specific area or vice versa give the opportunity to offer own help. On March 1, the State Emergency Service of Ukraine launched an information chatbot in WhatsApp with important updates, reliable information, and instructions on emergency response procedures. The Institute of Cognitive Modeling together with the Department of Medical Psychology, Psychosomatic Medicine and Psychotherapy and specialists of the project "Friend" launched a telegram-bot of first aid "Friend. First aid" (@friend_first_aid_bot). The Institute of Cognitive Modeling, the Ministry of Health and the Office of the President of Ukraine have designed a 24-hour psychological assistance platform "Tell me". We are going the same way is the bot to help Ukrainians with cars and people who have nothing to go, find each other. Shelters for Ukrainians is the bot to help people in need of asylum to find those who can provide it.

The Ministry of Digital Transformation and Corezoid have launched a Telegram and Viber for migrants, military and territorial defense chatbot "Turbotnyk". It helps the Ukrainian migrants day and night to get a temporary home and necessary things in CNAPs that work as points of concern.

Many chatbots have been created to gather objective information and evidence of war crimes. Thus, Cyberpolice has launched the following services: a chatbot "Narodnyy mesnyk" in telegram (@ukraine_avanger_bot) where Ukrainians will be able to send information about enemy signs on the country's roads and the movement of Russian aggression forces; SBU chatbot "TRIBUNAL.UA" to collect photo and video evidence for legal claims. Today, every Ukrainian is a witness to the war. All cases of crime must be recorded and used in the legal field in the international arena in order to see vladimir putin in The Hague. The following are recorded: 1. Evidence of murder and violence of civilians or military personnel (murder, torture (beating, rape, mutilation)), hostage-taking or captivity; 2. Evidence of use of weapons and military equipment of the russian federation, shelling, small arms, artillery or air, use of firearms, movement and use of military equipment; 3. Evidence of robbery, seizure and destruction of civil and state property (appropriation and destruction of property, transport, fuel, destruction of cultural monuments); 4. Personal data of the enemy (personal data, documents , passports, call signs and pseudonyms, identification marks). All submitted materials will be collected and used in the case against Russia [11].

The Armed Forces of Ukraine chatbot "eVorog" is a one where Ukrainians can report the movement of the occupiers, enemy equipment and explosive devices for their demining. The service works even without the Internet, and all information is automatically sent to the official chatbot. The main advantage is authorization through Diya. As a result, saboteurs cannot spam fake photos or videos, and the military receives truthful information [2]. Later the official bot "eVorog" launched a new feature that can be used to report the killers in Bucha, Irpen and Gostomel. SBU chat bot "STOPRussianWar" enables to report the movement of enemy equipment, Russian sabotage and reconnaissance groups, troops and equipment of the russian federation; it also has features that can be used to report detected explosive devices and equipment left by the russian occupiers. On March 10, 2022, the SBU expanded the channels for obtaining information from citizens about the war crimes of the Russian occupiers in Ukraine. From now telephone hotlines, emails and other messengers have been added to the Telegram chatbot. SBU has also launched a service "Bachu.info", which can be used to report the movement of russian troops and equipment, even in the absence of the Internet [26].

StopRussia | MRIYA (https://t.me/stopdrugsbot) enables the citizens to send links to enemy channels, groups, and profiles on social networks and messengers such as Telegram, YouTube, Facebook groups, Instagram profiles, which spread misinformation, as well as "leak" the locations of the Armed Forces. To block sabotage resources, one can use the channel https://t.me/stoprussiachannel with the detailed instructions on how to do it. Foundation "Povern'ýzhyvym" and volunteers have launched another service - FindOkupant. Znaydy zradnyka! (t.me/Traitor_Search_bot) to collect data on the movement of the Russian military as wells as to inform about traitors and collaborators who collaborated with the occupiers, and to expose Internet agents who "leak" important information to the enemy or distribute content on social networks in support of the invaders. Stop maroder (t.me/stop_marauder_ua_bot) is a chatbot to collect information about looters who steal other people's property during the war. This data will be verified and posted on the SBU website: stopmarauder.com.ua. The civil network Opora has launched a collection of evidence of Russia's war crimes to be presented to the international prosecutor in the Hague. IT company KitSoft has launched a telegram bot SmartNews, which collects news from official sources and they can be filtered by keywords. The State Environmental Inspectorate has created a bot and the website of the Operational Headquarters – Shtab.gov.ua, where one can report environmental crimes in Russia. TacticMedAid, a home care application, has been launched in Ukraine. The Center for Strategic Communications and Information Security at the Ministry of Culture and Information Policy has launched a bot in Telegram and Viber. The Dovidka Info bot gives advice on how to prepare and how to act in emergencies.

The last three months are marked by the following important events: an official chatbot eVorog was launched to enable every Ukrainian to report the location and movement of enemy equipment. More than 10 thousand Starlinks arrived in Ukraine to maintain and restore critical infrastructure. The first IT army was created in the world, which unites more than 300 thousand volunteers who are working to strengthen the country's cybersecurity. A crypto fund was launched and it raised more than $60 million in the crypt to help the Ukrainian army. Artificial intelligence is used to recognize the faces of dead Russians and designed UNITED24 - as the main window for collecting donations in support of Ukraine.

The number of chatbots of the authorities and structures operating on the protection of the information front testifies to the considerable support from the population and the coordination of the institutions actions to protect the information space. Such actions maximally achieve the goals of information hygiene during the war. It involves the ability to think critically, analyze texts and be able to create them. It is also necessary to understand the nature of information and techniques of its impact on the environment and people.

4 Conclusion

Modern globalization processes have qualitatively changed the content and forms of information wars. At the present stage of historical development, the tendency to resolve foreign policy conflicts without armed violence dominates. The information war has ceased to be a secondary factor, a supplement to the "main" events. It has become one of the most important mechanisms of warfare, which is talked about along with the use of armed forces and equipment. All types of hybrid warfare have become a legitimate means of political struggle. Despite the fact that a large part of society is aware of the process of targeted information attack on the enemy and allows the possibility of using "dirty" technologies, it is still subject to manipulation by the media. As a result, the winner in the communicative confrontation is not the one who tells the truth, but the one who managed to show the audience a more exciting "information series" and justify position very clearly. That is, the greater the information and technical capabilities of the country, the more likely the possibility of achieving strategic advantages in the future system of international relations. Hybrid wars have

become an axiom of modern international relations and make it possible to achieve the desired goals quite effectively, with the involvement of small financial and human resources: it all depends on the degree of professionalism of the implementers of information operations. It will be easier for those countries that will have a harmoniously developed and, therefore, protected information society to defend their positions in the information conflict.

Thus, at the present stage, hybrid wars have become one of the main threats to international security, which in the future may lead to the destruction of international relations as such. Uncontrolled information flows pose even greater risks to information conflict.

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