SCIENTIFIC RESEARCH OF THE SCO COUNTRIES: SYNERGY AND INTEGRATION 上合组织国家的科学研究:协同和一体化

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上合组织国家的科学研究:协同和一体化 国际会议

参与者的英文报告

International Conference "Scientific research of the SCO countries: synergy and integration"

Part 3: Participants' reports in English

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这些会议文集结合了会议的材料 - 研究论文和科学工作 者的论文报告。 它考察了职业化人格的技术和社会学问题。 一些文章涉及人格职业化研究问题的理论和方法论方法和原则。

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These Conference Proceedings combine materials of the conference – research papers and thesis reports of scientific workers. They examines tecnical and sociological issues of research issues. Some articles deal with theoretical and methodological approaches and principles of research questions of personality professionalization.

Authors are responsible for the accuracy of cited publications, facts, figures, quotations, statistics, proper names and other information.



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Foreword

We thank all participants of our conference "Scientific research of the SCO countries: synergy and integration" for the interest shown, for your speeches and reports. Such a wide range of participants, representing all the countries that are members of the Shanghai Cooperation Organization, speaks about the necessity and importance of this event. The reports of the participants cover a wide range of topical scientific problems and our joint interaction will contribute to the further development of both theoretical and applied modern scientific research by scientists from different countries. The result of the conference was the participation of 65 authors from 7 countries (China, Russia, Uzbekistan, Kazakhstan, Azerbaijan, Tajikistan, Kyrgyzstan).

This conference was a result of the serious interest of the world academic community, the state authorities of China and the Chinese Communist Party to preserve and strengthen international cooperation in the field of science. We also thank our Russian partner Infinity Publishing House for assistance in organizing the conference, preparing and publishing the conference proceedings in Chinese Part and English Part.

I hope that the collection of this conference will be useful to a wide range of readers. It will help to consider issues, that would interest the public, under a new point of view. It will also allow to find contacts among scientists of common interests.

Fan Fukuan,

Chairman of the organizing committee of the conference "Scientific research of the SCO countries: synergy and integration" Full Professor, Doctor of Economic Sciences 前言

我们感谢所有参加本次会议的"上海合作组织国家的科学研究: 协同作用和整合",感谢您的演讲和报告。代表所有上海合作组 织成员国的广泛参与者都谈到此次活动的必要性和重要性。参与 者的报告涵盖了广泛的主题性科学问题,我们的联合互动将有助 于不同国家的科学家进一步发展理论和应用的现代科学研究。会 议结果是来自7个国家(中国,俄罗斯,乌兹别克斯坦,哈萨克 斯坦,阿塞拜疆,塔吉克斯坦,吉尔吉斯斯坦)的65位作者的参 与。

这次会议的召开,是学术界,中国国家权力机关和中国共产党对 维护和加强科学领域国际合作的高度重视的结果。我们还要感谢 我们的俄罗斯合作伙伴无限出版社协助组织会议,准备和发布中 英文会议文集。

我希望会议的收集对广大读者有用,将有助于在新的观点下为读 者提供有趣的问题,并且还将允许在共同利益的科学家中寻找联 系。

范福宽,

教授,经济科学博士,中国科学院院士,会议组委会主席"上合组织国家科学研究:协同与融合"

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俄罗斯刑事诉讼中的公正审判权:国家与前景 THE RIGHT TO A FAIR TRIAL IN CRIMINAL PROCEDURE IN RUSSIA: STATE AND PROSPECTS

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这篇科学文章探讨了俄罗斯刑事诉讼中国际公平审判标准的执行情况。 作者揭示了公正审判的国际标准的内容及其在俄罗斯刑事诉讼法和执法实 践中的体现。 注意到俄罗斯法律中关于公正审判权的法律规定不成体系, 在此基础上得出关于改变其法律法规方法的结论。

关键词:刑事诉讼,法院,司法,辩护,被告。

Abstract. This scientific article examines the implementation of international fair trial standards in Russian criminal proceedings. The author reveals the content of the international standard of a fair trial and its reflection in Russian criminal procedure legislation and law enforcement practice. The fragmentation of legal provisions on the right to a fair trial in Russian legislation is noted, on the basis of which a conclusion is made about a change in the approach to its legal regulation.

Keywords: criminal procedure, court, justice, defense, accused.

The right of the accused to a fair trial is enshrined in a number of international agreements:

According to Part 1 of Art. 14 of the Covenant on Civil and Political Rights "Everyone has the right in considering any criminal charge against him.... to a fair and public hearing of the case by a competent, independent and impartial tribunal established by law ". A similar rule is enshrined in Part 1 of Art. 6 of the European Convention on Human Rights.

The content of this right is disclosed through the totality of the subjective rights of the accused, enshrined in the listed documents, as well as the legal positions of the European Court of Human Rights. Most researchers of international criminal justice standards, taking into account the positions of the ECHR, agree that it is the right to a fair trial that is the key international human rights standard that determines the content of other standards¹. In their opinion, the right to a fair trial

1 Kovler A.I. The practice of the European Court of Human Rights and its significance for the Russian Federation // Russian and European human rights systems: correlation and problems of har-

includes:

1) the right to access to justice;

2) the right to a court established by law;

3) the right to an independent and impartial court;

4) the right to equality of parties;

5) the right to defense;

6) the right to a public hearing;

7) the right to receive a reasoned court decision;

8) the right to appeal against a court decision;

9) the right to a final and stable judgment;

10) the right to enforce the judgment;

11) the right to adjudicate the case within a reasonable time.

In Russian legislation and legal doctrine, the right to a fair trial is viewed in a narrower context. The right to a fair and public hearing by an independent and impartial tribunal established by law is considered to have three elements:

1) the court is created on the basis of the law;

2) the court is competent to make decisions on the cases presented to it;

3) the court is independent and impartial.

In expanded form, the Russian constitutional standard of the right to a fair trial "is as follows:

Part 1 of Art. 19 "All are equal before the law and the court".

Part 1 of Art. 47 "No one can be deprived of the right to have his case examined in that court and by the judge, to whose jurisdiction it is attributed by law."

Part 1, 3 Article 118 "Justice in the Russian Federation is administered only by the court. The judicial system of the Russian Federation is established by the Constitution of the Russian Federation and federal constitutional law. The creation of emergency courts is not allowed. "

Art. 120 "Judges are independent and are subject only to the Constitution of the Russian Federation and federal law. The court, having established during the consideration of the case the discrepancy between the act of a state or other body and the law, makes a decision in accordance with the law. "

The Constitution of the Russian Federation provides for the right of everyone to apply to interstate bodies for the protection of human rights and freedoms if all national legal remedies have been exhausted. Among such bodies, the European Court of Human Rights occupies a special place. The Russian Federation recognized the binding nature of the decisions of the Strasbourg Court on all

monization: Coll. Art. N. Novgorod, 2003., Kuchin M.V. Case Law of the European Court of Human Rights: Monograph. Ekaterinburg, 2004., De Salvia M. European Convention on Human Rights. SPb., 2004., McBride J. The concept of a fair trial and its main elements // European standards of the right to a fair trial and Russian practice: Coll. Ekaterinburg, 2003., Gomien D., Harris D., Zwaak L. The European Convention on Human Rights and the European Social Charter: Law and Practice. M., 1998., La Convention des droits de l'homme. Commentaire article par article. P., 1999.

issues of interpretation and application of the European Convention on Human Rights and Fundamental Freedoms in the event of alleged violations by its side. Therefore, the decisions made by the European Court serve as nothing more than a specification of the international standards contained in the Convention, and the Court itself, in turn, is the guarantor of the observance of these standards by the States parties to the Convention².

Thus, in its judgment in the case of "Kucherov and Frolov against the Russian Federation", the European Court of Human Rights considered that the existence of two points of view on one issue cannot be a basis for canceling court decisions.

The European Court notes that in order to ensure the principle of legal certainty envisaged within the meaning of the provisions of Art. 6 of the Convention, final judgments should generally remain unchanged. Court orders are subject to change only to correct fundamental errors. Only the possible existence of two points of view on one issue cannot be a reason for revision.

In this case, the presented and final judicial decisions were overturned because the Presidium did not agree with the assessment made by the lower courts, which is not in itself an exceptional circumstance justifying the cancellation of judicial decisions, which is a violation of paragraph 1 of Art. 6 of the Convention³.

An important provision used in assessing the fairness of a trial is the observance of equal opportunities for defense and prosecution. Equality of opportunity in court proceedings implies the equal application of procedural actions in relation to the parties to the proceedings.

The right to a fair trial is interpreted broadly and does not mean that fairness applies exclusively to the judicial stages of criminal proceedings⁴. It arises from the moment of the commencement of compulsory actions against a person subject to criminal prosecution - from the moment of arrest, presentation of charges⁵.

Art. 6 of the Code of Criminal Procedure of the Russian Federation enshrines the important right of every person when considering a criminal charge brought against him to a fair and public hearing of the case within a reasonable time by an independent and impartial court.

In 2010, the Code of Criminal Procedure of the Russian Federation was supplemented by Art. 6.1 "Reasonable time frame for criminal proceedings". Explaining the issues of compliance with procedural deadlines, the Supreme Court of the Russian Federation indicated that the need to comply with reasonable time

2 Spesivov N.V. The right to a fair trial and its implementation in criminal proceedings involving minors // Actual problems of Russian law. 2014. N_{2} 5. P.925

3 Judgment of the European Court of Human Rights of February 11, 2010. Official website of the European Court of Human Rights. http://hudoc.echr.coe.int/eng?i=001-97248

4 Improving national rights protection measures for the right to a fair trial in the Russian Federation. M., 2011. P. 48.

5 Kachalova O.V. Ensuring the right to a fair trial as a principle of modern Russian criminal procedural law // Russian judge 2014. N_{2} 6. P.12

limits for legal proceedings cannot serve as a reason for restricting other rights under Art. 6 of the Convention. Let us add that this also applies to other procedural possibilities of the participants in the process, including those contained in the Code of Criminal Procedure of the Russian Federation or other legislative acts.

Most of the provisions that make up the content of the principle of ensuring the right to a fair trial are reflected in the Constitution of the Russian Federation and the Code of Criminal Procedure of the Russian Federation. Some of the above provisions are reflected in Ch. 2 of the Code of Criminal Procedure of the Russian Federation, which defines the principles of criminal proceedings (Articles 6.1, 8, 14, 16, 18, etc.), and partly - in the Special Part of the Code of Criminal Procedure of the Russian Federation. This refers to the right of the accused to interrogate witnesses testifying against him or to have the right to have these witnesses interrogated, and to have the right to summon and interrogate witnesses in his favor under the same conditions as for witnesses testifying against him (paragraph "d" part 3 article 6 of the European Convention).

So, in accordance with Part 2 of Art. 159 of the Code of Criminal Procedure of the Russian Federation, the suspect or the accused, his defense lawyer and other participants in the process cannot be denied the interrogation of witnesses, the production of a forensic examination and other investigative actions, if the circumstances, the establishment of which they petition, are important for the given criminal case.

In accordance with Part 4 of Art. 217 of the Criminal Procedure Code of the Russian Federation, upon completion of the acquaintance of the accused and his defense lawyer with the materials of the criminal case, the investigator finds out which witnesses, experts, specialists are to be summoned to the court session for interrogation and confirmation of the position of the defense.

Based on part 4 of Art. 220 of the Code of Criminal Procedure of the Russian Federation attached to the indictment is a list of persons subject to summons by the prosecution and defense, indicating their place of residence and (or) location, and in accordance with Part 4 of Art. 271 of the Code of Criminal Procedure of the Russian Federation, the court does not have the right to refuse to satisfy the request for interrogation in the court session of a person as a witness or a specialist who appeared in court on the initiative of the parties.

All of the above allows us to conclude that the fairness of the trial is important and is of a combined nature, since its content is closely related to other principles of criminal procedural law that have independent significance: the principle of the presumption of innocence, the principle of ensuring the suspect and the accused have the right to defense, the principle of the language of legal proceedings, the principle of observance of a reasonable period of criminal proceedings, the principle of administering justice only by the court, the principle of independence of judges, etc. By virtue of this, the most rational approach is to combine the provisions of these principles in the part related to the court into the principle of fair trial.

References

1. La Convention des droits de l'homme. Commentaire article par article. . P., 1999.

2. Gomien D., Harris D., Zwaak L. The European Convention on Human Rights and the European Social Charter: Law and Practice. M., 1998.,

3. De Salvia M. European Convention on Human Rights. SPb., 2004.

4. Kachalova O.V. Ensuring the right to a fair trial as a principle of modern Russian criminal procedural law // Russian judge N_{2} 6, 2014.

5. Kovler A.I. The practice of the European Court of Human Rights and its significance for the Russian Federation // Russian and European human rights systems: correlation and problems of harmonization: Coll. Art. N. Novgorod, 2003.

6. Kuchin M.V. Case Law of the European Court of Human Rights: Monograph. Ekaterinburg, 2004.

7. McBride J. The concept of a fair trial and its main elements // European standards of the right to a fair trial and Russian practice: Coll. Ekaterinburg, 2003.

8. Judgment of the European Court of Human Rights of February 11, 2010. Official website of the European Court of Human Rights. http://hudoc.echr.coe. int/eng?i=001-97248

9. Improving national rights protection measures for the right to a fair trial in the Russian Federation. M., 2011. P. 48.

10. Spesivov N.V. The right to a fair trial and its implementation in criminal proceedings involving minors // Actual problems of Russian law. 2014. $N_{\rm P}$ 5.

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数字经济中企业家的可信赖空间和身份识别 TRUSTED SPACES AND IDENTIFICATION OF THE ENTREPRENEUR IN DIGITAL ECONOMY

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随着第四次工业革命的来临,企业家的真实和虚拟(电子)个性开始疏远。电子环境中的交互使信任问题与交互主题的标识相关。本文探讨了数字经济对公民身份的影响。在数字环境中进行交易需要在数字环境中建立可信的空间。该空间的要素之一是确定缔约方。与数字环境中新兴机构的识别相关的公民身份权问题,是一种确认身份的方式,即公民脱离其身份。

关键词:公民,个体企业家,数字经济,身份,身份识别,数字平台,可信空间,商业法

Abstract. With the approach of the fourth industrial revolution, alienation of the real and virtual (electronic) personality of the entrepreneur begins. Interaction in the electronic environment makes the issues of trust the identification of subjects of interaction relevant. The article examines the impact of the digital economy on citizen identity. Making deals in the digital environment necessitates building a trusted space in it. About one of the elements of this space is the identification of the contracting parties. The question of the citizen's right to identity in connection with the identification of emerging institution in the digital environment, a way of affirming the identity, citizen alienation from his identity.

Keywords: *citizen, individual entrepreneur, digital economy, identity, identification, digital platform, trusted spaces, business law.*

The fourth industrial revolution forms a new approach to the formation of a uniform economic space. Digital spaces of trust, which are aggregators of all the productive power of society gain development.

Conventionally, there are three basic processes of forming a uniform digital space¹:

• the digital transformation of public administration, covering the use of

¹ URL: https://elibrary.ru/download/elibrary_30536052_43225076.pdf (inquiry date: 12.04.2019)

digital technologies in the provision of information exchange services between government agencies, businesses, and citizens, risk-based supervision;

• the formation of a digital market, including the provision of free and easy access to the Internet of goods and services, capital services, including electronic money, individuals and legal entities in the conditions of fair competition, with a high level of protection of their legal rights and personal data, regardless of the place of their residence, nationality and place of the transaction;

• The digital transformation of the economy, which implies the digital transformation of traditional sectors of the economy, the emergence of new digital sectors of goods and services, and the collectively called "industry 4.0".

The following opportunities confirm the relevance of the development of trust spaces:

• The wide scope of application: trade, transportation, finance and simplified interaction with public authorities

• Reduction of speed and expenses of transactions, including international, simplifying the investment process

• Improved data confidence

• The decrease in administrative barriers and corruption, which leads to the improvement of the investment climate

• Simplification of customs control

• Simplification of control over foreign trade activities

The problems arising in the development of digital trust spaces include the following:

• Digital gap

• Platform Integration, Compatibility technological and technical solutions, software used in different states

• Recognition of electronic documents, signatures, and identity of the subject in the digital space by official authorities, including courts, the necessary attributes of documents,

• Identification and authentication at national and cross-border exchange of information, identification method recognition in another state

• Differences in information security standards, personal data, legal barriers to exchange them,

• Problems with differences in document requirements (development of

general details of the documents)

Trusted spaces subdivided into national and transboundary. Forming of cross-border trusted spaces accelerates the processes of globalization, promotes integration processes.

The development of cross-border trusted spaces generates conflict questions of legislation in terms of collecting, storage, transfer of personal data, problems of the legality of the transfer of personal data for identification and authentication of subjects in the digital environment in the case of integration of cross-border and national trust environments. These collisions can be overcome by:

- · Harmonization of legislation of different states
- Development and adoption of international treaties and conventions
- Infrastructure development

Trust becomes the basic principle of interaction of subjects in the digital environment in the conditions of the fourth industrial revolution. It is manifested in the confidence of the digital signature, identification, trust in the reliability of the transmitted data. There are centralized and decentralized trusted spaces.

In a centralized environment, the subject undergoes primary and secondary identification (depending on the required level of trust). Decentralized systems (blockchain) are anonymous and until recently were considered as the most secure. However, today there are some researches prove the idea of the possibility of hacking the blockchain using quantum computers².

The digital economy changes the traditional human rights institutions.

Although the category of a subject of law is the cornerstone in the theory of law, the concept of "the subject of law" is not identical to the concept of "person," and man as a subject of law in jurisprudence acts as a physical person - a physical body³.

The emergence of digital subjects leads to depersonalization, the elimination of the human factor and the further isolation of the real and virtual personality, the subject of law from the person.

Identification presents as:

— Confirmation of the identity of the subject. It gives identity to the signs allowing to identify the subject to whom the unique identifier is appropriated;

- Confirmation of the legal status of a subject, for example, a business or foreign trade activity.

About 67% of hacker attacks fall on small and medium businesses, that generates a crisis of confidence in a counterparty in a digital environment and generates identity verification risks:

- The incompleteness of the data in the database (inadequate reflection data

3 Ivanskij V.P. K opredeleniyu cheloveka kak sub``ekta prava XXI veka skvoz` prizmu informacionno-kvantovoj koncepcii prava // Administrativnoe pravo i process. 2016. N 1. S. 48 - 53; N 6. S. 70 - 75. / SPS «Konsul`tant Plyus» (inquiry date: 03.12.2018)

^{2 «}Quantum computers put blockchain security at risk», Bitcoin and other cryptocurrencies will founder unless they integrate quantum technologies, warn Aleksey K. Fedorov, Evgeniy O. Kiktenko and Alexander I. Lvovsky // URL: https://www.nature.com/articles/d41586-018-07449-z?fbclid=IwAR1IWGC3AI6TypQY9F3ntxxA6MeATEEyAkYSqv7xTQqiZGv1rIm-j4tZJxkI (inquiry date: 12.04.2019);

Hackers blind quantum cryptographers // URL: https://www.nature.com/news/2010/100829/full/ news.2010.436.html (inquiry date: 12.04.2019)

on capacity and authority of the subject in the system),

- Losses due to inaccurate information in the system, failure in the identification-authentication system,

- Identity theft, the problem of restoring identity and authenticity,
- Harm to a subject caused as a result of its identification by third parties,
- Illegal obtaining personal data,
- Getting a trade secret.

Creation of a unique digital environment generates confidence problem identification contracting party's legal entity, that requires building a perimeter of trust in a digital economy. The perimeter of trust can be built up both through identification and the use of escrow accounts (in this case, identification does not matter; the fact of payment matters).

In this regard, developments in the field of creating national and transnational trusted spaces are conducted.

In cross-border trusted spaces status (powers) of the party which signed an electronic document, following international recommendations belongs to the attributes of the documents necessary for the performance of its legal functions⁴.

Identification is considered to be the process of distinguishing something or someone from something or someone else in determining what is the same as something that differs from something, in attributes or essence. The identification procedure consists of establishing the differences between the identified being and other beings; in giving meaning to the identified through what it is, to which it is equal or wants (already in the case of a living being) to be equal, that is, fixation of the identifiable in its identity with itself while simultaneously determining the difference of its meaning from all other meanings that are not related to it⁵.

The idea of personal identification is not new. In non-digital society, it was carried out by name, surname, patronymic, date of birth, place of residence, the identifier could also perform the role of number and series of passport, personal tax reference number (INN), personal pension account number (SNILS).

The identifier in the digital environment in its essence is an analog of the last name, first name, an alternative method of confirming the identity (INN, SNILS).

The subject of identification in the trusted space is the subject of any participants in distance transactions, resident and non-resident of the Russian Federation, including any legal or natural person, organization without creating

⁴ Belaya kniga o nadezhnoĭ transgranichnoĭ srede. Obespechenie yuridicheski znachimogo nadezhnogo transgranichnogo e'lektronnogo vzaimodeĭstviya EE'K, Centr OON po uproshheniyu procedur torgovli i e'lektronny'm delovy'm operaciyam SEFAKT, 30 aprelya — 1 maya 2018. S. 8-10. // URL: https://www.unece.org/fileadmin/DAM/cefact/cf_plenary/2018_plenary/ECE_TRADE_C_ CEFACT_2018_7R.pdf (inquiry date: 12.04.2019)

⁵ Kuzin I.V. Identifikaciya sub``ekta: social`no-filosofskij analiz // Dis. ... kand.filos. nauk, SPb, 2000. S. 3.

a legal entity, individual entrepreneur, notary, lawyer, other individual engaged in private practice or robot (automated system)⁶.

The data in the databases (registries of entities) have to confirm its status as an entrepreneur.

The identification in the digital environment accompanies authentication - confirmation of identity by means of a password, biometric data (INN confirms the identity of the subject and - taxpayer, a natural or legal person taxpayer Remote Authentication is carried out either on the INN and password provided at the primary identification after visiting the tax authority or through the ESIA system.

The INN of an individual entrepreneur and a non-entrepreneur citizen are the same. At the same time, the INN itself does not allow to distinguish the identity of an individual as a subject of civil law and an individual entrepreneur as a subject of business law. It makes sense, for example, in the case of the need to distinguish the property used in business, from the personal property of individual entrepreneur.

Identity verification can be carried out during registration as an individual entrepreneur, by assigning an identifier.

Confirmation of Identity with an identifier is also carried out by reaction with a tax authority (reporting delivery, dissolution of an individual entrepreneur).

Confirmation of the identity of a citizen as an entrepreneur can be carried out in the personal account of the bank, for example, when choosing the status of the payer in the payment order.

Storing data on entrepreneurs in the electronic database creates a threat of replacement of personal information about the subject in an electronic database that will make complexity for proof of their own identity if all personal data, including biometric data, will exist only in electronic form.

Already, identity verifies electronically, and many state and municipal services provided by entrepreneurs only electronically.

Thus, on the one hand, the development of the digital economy requires changes in Russian legislation following the new legal relations⁷ that occur between particular subjects⁸. With another — it is necessary to understand that the state will not be able to settle up to standard all of these relations, and therefore the self-regulation instruments should become the main instrument of regulation.

⁶ Summanen K. Nacional'naya sreda doveriya identifikacii dlya distancionny'x sdelok// Connect, 2015, N 4. S. 90.

⁷ Egorova M. A. Osobennosti normativnogo regulirovaniya cifrovoj e`konomiki i problemy` antimonopol`nogo regulirovaniya na cifrovy`x ry`nkax kak sredstvo zashhity` nacional`ny`x interesov // Yurist, № 11, 2018. S. 9.

⁸ Egorova M. A. Osobennosti normativnogo regulirovaniya cifrovoj e`konomiki i problemy` antimonopol`nogo regulirovaniya na cifrovy`x ry`nkax kak sredstvo zashhity` nacional`ny`x interesov // Yurist, № 11, 2018. S. 7.

References

1. Aktual'ny'e problemy' sovremennogo prava i e'konomiki Evropy' i Azii: kollektivnaya monografiya: T. I / Otv.red. M. A. Egorova, I. V. Xalevinskij. — M.: «Yusticinform», 2018. 344 s.

2. Belaya kniga o nadezhnoĭ transgranichnoĭ srede. Obespechenie yuridicheski znachimogo nadezhnogo transgranichnogo e`lektronnogo vzaimodeĭstviya EE`K, Centr OON po uproshheniyu procedur torgovli i e`lektronny`m delovy`m operaciyam SEFAKT, 30 aprelya — 1 maya 2018. S. 8-10. // URL:https://www. unece.org/fileadmin/DAM/cefact/cf_plenary/2018_plenary/ECE_TRADE_C_ CEFACT 2018 7R.pdf (inquiry date: 12.04.2019)

3. Gorodov O. A., Egorova M. A. Osnovny`e napravleniya sovershenstvovaniya pravovogo regulirovaniya v sfere cifrovoj e`konomiki v Rossii // Pravo i cifrovaya e`konomika, 2018, № 1 (01). S. 6-12.

4. Egorova M. A. Osobennosti normativnogo regulirovaniya cifrovoj e`konomiki i problemy` antimonopol`nogo regulirovaniya na cifrovy`x ry`nkax kak sredstvo zashhity` nacional`ny`x interesov // Yurist, N 11, 2018. S. 7-10.

5. Ivanskij V.P. K opredeleniyu cheloveka kak sub``ekta prava XXI veka skvoz` prizmu informacionno-kvantovoj koncepcii prava // Administrativnoe pravo i process. 2016. N 1. S. 48 - 53; N 6. S. 70 - 75. / SPS «Konsul`tant Plyus» (inquiry date: 03.12.2018)

6. Kuzin I.V. Identifikaciya sub``ekta: social`no-filosofskij analiz // Dis. ... kand.filos. nauk, SPb, 2000. 181 s.

7. Summanen K. Nacional`naya sreda doveriya identifikacii dlya distancionny`x sdelok// Connect, 2015, N_{2} 4. S. 90-101.

8. URL: https://elibrary.ru/download/elibrary_30536052_43225076.pdf (inquiry date: 12.04.2019)

9. Hackers blind quantum cryptographers // [E`lektronny`j resurs] rezhim dostupa: https://www.nature.com/news/2010/100829/full/news.2010.436.html (inquiry date: 12.04.2019)

10. «Quantum computers put blockchain security at risk», Bitcoin and other cryptocurrencies will founder unless they integrate quantum technologies, warn Aleksey K. Fedorov, Evgeniy O. Kiktenko and Alexander I. Lvovsky // URL: https://www.nature.com/articles/d41586-018-07449-z?fbclid=IwAR11WGC3A16TypQY 9F3ntxxA6MeATEEyAkYSqv7xTQqiZGv1rImj4tZJxkI (inquiry date: 12.04.2019)

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评估印古什共和国初等普通教育组织的创新活动 ASSESSMENT OF INNOVATIVE ACTIVITY OF PRIMARY GENERAL EDUCATION ORGANIZATIONS IN THE REPUBLIC OF INGUSHETIA

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向普通教育界提出的这篇文章是作者试图解决创新教育在国家区域发 展的问题(基于印古什共和国初等教育的材料)。

本文包含对该共和国初等教育组织创新活动评估的分析。该分析基于 教育界认可的评估标准:1)创新过程管理的有效性;2)教育机构的材 料和技术设备;3)在其基础上引入新的方法,形式和教学技术,4)学 校在教育计划中的自决权,学科的清单和数量,5)体育馆,中学的运 作,创新的教育组织,6)信息化,互联网的使用,7)教师的能力在教学 创新领域,8)补充教育组织的活动,9)学校与家庭之间在创新问题上的 互动。

作者根据上述每个标准对指定教育组织的创新活动进行了分析,强调 了成就,不足并在五点系统上分配了适当的分数。通过对期末评估进行定 量计算的结果,达到了期望的分数,这使得可以判断在共和国实施的初等 教育组织的创新活动以及提高这一过程效率的前景。

关键字:创新活动,初等普通教育的组织,评估,评估标准,国家和 地区的教育组成部分,管理,新方法,形式和教学技术,教育计划,体育 馆,学堂,创新教育组织,信息化,使用互联网,教师能力,专职教育组 织,学校与家庭之间的互动。

Annotation. The article proposed to the general pedagogical community is the author's attempt to solve the problem of the national-regional development of innovative education (based on the material of primary education of the Republic of Ingushetia).

The article contains the analysis of the assessment of the innovative activity of organizations of primary education in this republic. This analysis is based on the evaluation criteria approved by the pedagogical community: 1) the effectiveness of management of innovative processes, 2) the material and technical equipment of educational institutions, 3) the introduction of new methods, forms and pedagogical technologies on their basis, 4) the self-determination of schools in educational programs, the list and the volume of academic disciplines, 5) the functioning of gymnasiums, lyceums, innovative educational organizations, 6) informatization, use of the Internet, 7) the competence of teachers in the sphere of pedagogical innovation, 8) the activities of organizations of complementary education, 9) interaction between schools and families on issues of innovation.

The author analyzes the innovation activity of the named educational organizations according to each of these criteria, highlighting the achievements, shortcomings and assigning an appropriate score on a five-point system. As a result of quantitative calculations of the final assessment, the desired score is achieved, which makes it possible to judge the innovative activities of primary education organizations being implemented in the republic and the availability of prospects for increasing the efficiency of this process.

Keywords: innovative activity, organizations of primary general education, assessment, evaluation criteria, national and regional component of education, management, new methods, forms and pedagogical technologies, educational programs, gymnasiums, lyceums, innovative educational organizations, informatization, the use of the Internet, teachers' competence, organizations of complentary education, interaction between school and family.

The assessment of innovative activity of primary general education organizations in Ingushetia is based on the criteria for evaluating the implementation of innovation policy by secondary general education organizations of the national republic, developed by D. M. Tseloeva [1]. From the list given by this author, the following criteria of innovation activity are applicable to organizations of primary general education in national subjects of the Russian Federation: 1) efficiency of management of innovative processes and experimental activities at the level of the Republican Ministry of education and science, municipal education management bodies, 2) material and technical equipment of educational organizations, 3) introduction of new methods, forms and pedagogical technologies on their basis, 4) self-determination of schools in educational programs, the list and volume of academic disciplines, 5) functioning of gymnasiums, lyceums, innovative educational organizations, 6) informatization, use of the Internet, 7) competence of teachers in the sphere of pedagogical innovation, 8) cooperation of organizations of primary general education with organizations of additional education, children's public organizations, 9) interaction of schools and families on issues of innovation. These criteria allow us to evaluate the innovative activity of primary general education organizations in the Republic of Ingushetia with a high degree of confidence.

Let us analyze the innovative activity of the system of primary general education in Ingushetia. It operates within the framework of federal and republican legislation, decrees of the Ministry of Education and Science of Ingushetia, and orders of municipal authorities for primary general education. The organizational foundations of innovative activities of primary education organizations are enshrined in the Federal Law "On Education in the Russian Federation", the National Doctrine of Education until 2025. The People's Assembly of the Republic of Ingushetia implements and controls the implementation of federal legislation regarding the implementation of innovation policy, as stipulated in article 3 of the law "On education in the Republic of Ingushetia " dated January 31, 2014 No. 5-RZ. This law, resolutions and orders of the government of the Republic of Ingushetia, as well as orders, legislative acts and resolutions of the Republican Ministry of education and science reflect the substantive regulatory and legal framework for innovative activities of primary general education organizations of Ingushetia at the national and regional level. The methodological foundations of innovation activities of these organizations are contained in the orders, legislative acts and resolutions of the Ministry of education and science of the Republic of Ingushetia.

The government of the Republic approves educational development programs, which include innovative developments. Innovations in programs and textbooks are determined by the socio-economic, environmental, demographic, and ethnocultural specifics of the Republic.

Let us concretize the documentation of innovative activities of Republican organizations of primary general education. Its content is reflected in the articles of the law "On education in the Republic of Ingushetia". In particular, article 7 of the law sets out the tasks of educational and methodological associations, one of which is the development and implementation of innovations. Article 8 "Innovative activity in the sphere of education" states that innovative activity in the republic is focused on improving scientific and pedagogical, educational and methodological, organizational, etc. education system and is carried out in the form of implementation of innovative projects and programs by educational organizations. According to paragraph 1, the law guarantees the rights and legitimate interests of participants in innovative educational relations. Paragraph 2 of the article contains information about regional innovation platforms.

Government Decree No. 433-R "The strategy for innovative development of the Republic of Ingushetia until 2025", dated June 30, 2012, played an important role in national and regional innovative legislation in primary general education. The Strategy prescribes measures to stimulate innovation in the territories of municipalities of the Republic [2].

Within the framework of this document the following has already been implemented: 1) partial equipping of schools with modern educational and laboratory equipment and computer equipment, 2) development of school infrastructure, 3) in the context of distance learning in educational organizations - creation of material and technical base, development of the environment for the use of information and communication technologies, 4) increase in teachers' salaries, taking into account their innovative developments, 5) regular professional retraining, advanced training.

Detailed regulatory information on the innovative activity of primary general education organizations is contained in the orders of the Ministry of Education and Science of the Republic of Ingushetia. The functions of the Ministry for the organization and management of innovative activities include resource support for regional projects (programs), monitoring and evaluation of the results of innovation.

In the municipal districts of the Republic of Ingushetia, innovation activities in the system of primary general education are managed by local self-government bodies. Feedback of these bodies with the Ministry of Education and Science of the Republic of Ingushetia regarding the work of innovative municipal sites is being implemented.

Thus, the effectiveness of management of innovative processes and experimental activities in organizations of primary general education in the Republic of Ingushetia is achieved. The existing legal framework ensures a well-coordinated work in this area.

The assessment of the material and technical base of primary general education organizations in the Republic of Ingushetia according to criterion 2 is determined by the law "On education in the Republic of Ingushetia " dated January 31, 2014 No.5-RZ and its implementation. Article 15 of the law discloses the content of financial support for innovation activities, taking into account educational programs and technologies, remuneration standards for teachers, and their additional professional education. Article 9 of the law creates prerequisites for public-private partnership in the field of education, deepening the financial prospects for innovation.

However, an interview (October 2020) with the directors of the State Educational Institution "Secondary School No 3" in Nazran, State Educational Institution of Education "Secondary School No 12" Inarki, Malgobek district, Secondary School No 9 in Nazran reflected the failure of public-private partnership in primary general education due to the lack of interest of private entrepreneurs. The abolition of income tax in the case of private business investment in education, which existed in the 1990s, has now been abolished. At the same time, real partnership has been leveled

There is a lack of budgetary funds for the implementation of full-scale innovation activities in primary schools. According to the interviewees, the reasons for the shortage of material and technical means in the sphere of republican education, including in innovation activities, are: 1) the low level of gross regional product per capita (5 times lower than the average in Russia), 2) restrictions on investment flows into the economy and social sphere of Ingushetia in 1990 - early 2000, 2007 due to the crisis.

Thus, we conclude that there is insufficient funding for innovative activities in republican organizations of primary general education.

For evaluating the innovative activity of organizations of primary general education according to criteria 3, 4, 5, let us turn to statistical data. In 2020, in the Republic of Ingushetia there were 123 daytime general education organizations with primary grades, including 119 state ones [3]. However, there is a shortage of seats in the primary grades of general educational organizations: in more than 40 schools of the republic, the number of students exceeds their permissible volume by 2–3 times.

Against the background of intensive school construction, an important aspect is the construction of gymnasiums, lyceums, non-governmental educational organizations, where the development and implementation of educational innovations is carried out in the primary grades. In 1996, a lyceum appeared in the city of Nazran. In 1998, gymnasium No. 1 was put into operation in the city of Nazran. In 1999, two gymnasiums appeared in Malgobek and Karabulak, in 2001 – "Marem" gymnasium in Magas. In the same year, the "Intellect" was created in the village Ekazhevo. In 2003 the Ali-Yurt gymnasium was founded. In 2004, the Ellin secondary school was opened in Nazran. From 2004 to 2011, the situation did not change. In 2012, a new lyceum was opened in the city of Magas. Such data are typical for the last eight years: 4 lyceums, 5 gymnasiums, 5 non-governmental educational organizations have been created in the republic.

New organizational forms, methods and technologies of education and training are being actively introduced in the primary classes of the above-mentioned innovative educational organizations – gymnasiums, lyceums, and non-governmental educational organizations. In particular, in the development program for 2017-2025 adopted by the staff of the state educational institution "Gymnasium No. 1" in Nazran, the following are named as priority tasks:

- creating such learning conditions under which students could develop their abilities;

- improvement of work with gifted children, their psychological and pedagogical support;

- formation of a versatile socially active personality based on a combination of a high-quality level of gymnasium education with a wide range of additional education;

- expanding the scope of application of new information technologies and multimedia teaching tools in the teaching of humanistic disciplines [4].

The innovative orientation of the gymnasium curriculum is implemented through 1) subprograms individually selected by the gymnasium that ensure the intellectual development of the individual, 2) the development of the individual

component of the curriculum. Education is based on flexible forms of organization of the educational process that contributes to the development of students' abilities. The leading place belongs to creative methods combined with methods of independent, group and individual work. The school parent Committee is working on the implementation of the project "Parent University", where medical, psychological and pedagogical education of parents is carried out.

Another example of innovative activity in primary schools is the state educational institution "Lyceum No.1" in Nazran. This activity is implemented in the Lyceum within the framework of the methodological theme "Development of creative individuality of students and teachers in the context of personality-oriented education". The purpose of the Lyceum's innovative activities in primary classes is to identify gifted children, develop their intellectual abilities, physical health, spirituality, and creative inclinations.

The Lyceum has become a multiple winner of competitions of general education organizations that implement innovative educational programs. It is listed on the national register of leading educational institutions of Russia for the contribution to the development of their region, awarded by diplomas of the Ministry of education and science of the Russian Federation, the National system "Integration", national company "national potential of Russia", State Duma, Ministry of education and science of the Republic of Ingushetia.

A significant contribution to the implementation of innovation policy in education is made by the ELLIN secondary school. By ownership, this is a full-time private school, or half board. In elementary school, English is taught. Much attention is paid to the sports training of children. Additional education at the school covers swimming, choreography, chess, and sports sections. The information resource center of the school is fully equipped. The innovative activity of teachers in the elementary general school is subordinated to the development of the child. The school works with parents and the community.

In recent years, quite a lot of new organizational forms, methods and technologies of upbringing and education have been introduced in the structure of primary general education in the Republic of Ingushetia. In particular, an in-depth study of the following subjects has been introduced:

– mathematics: school № 3 in rural settlement Kantyshevo, Nazran district, schools No. 2, 5, 9, 14 of. Nazran, schools No. 2, 3 in rural settlement Plievo of the Nazran district, school No. 3 in rural settlement Yandare district of Nazran, schools № 5, 22 Malgobek district, school № 18 in the city of Malgobek, school № 2 in rural settlement Troitskoe, Sunzha district, schools No. 2, 6 in rural settlement Ordzhonikidzevskaya of the Sunzha district, school № 3 in rural settlement Nesterovskoe Sunzha district;

- Informatics: "Gymnasium No. 1" of Malgobek.

Appropriate changes have been made to the Charters and the general school plan. Based on the basic curriculum, individual curricula have been drawn up, teachers have improved their qualifications and have been retrained.

The "Gifted children" subprogram of the Republican target program "Development of the education system of the Republic of Ingushetia for 2019-2022" provides for the provision of educational organizations of primary General education with training tools for working with gifted children.

Based on the above, we conclude that on the basis of such organizations in the Republic, there is a fairly intensive introduction of new methods, forms and pedagogical technologies. At the same time, primary education organizations make sufficient use of their right to self-determination in educational programs, the list and volume of academic disciplines.

Following the logic of our research, we will focus further on criteria 6 – the innovative competence of teachers. In the XXI century it is related in many ways to teachers ' knowledge of information technology. In this regard, the Institute of advanced training of education workers of the Republic of Ingushetia, together with the Institute of information technologies "IT", regularly organizes and conducts distance learning for primary school teachers on the topic "Training and methodological support for teachers on the use of electronic educational resources in educational activities, including the involvement of distance educational technologies". The network model of training is based on the organization of individual activities in the learning environment without direct tutor support, which implies that students have stable skills in working on the Internet. Distance learning is focused on the wide use of interactive means of communication.

10 methodologists of the Institute for Advanced Training of Educational Workers of the Republic of Ingushetia underwent advanced training at the IT Institute of Information Technologies in Moscow on a virtual federal platform in the form of distance learning on the topic "Development of new generation electronic educational Internet resources".

In general, the situation according to the analyzed criterion is positive, however, the heads of educational organizations of primary education often complain about the inertia of elderly teachers, their unwillingness to engage in innovative activities. In the educational process, they rely on traditional training and education and their experience. It takes a lot of effort to motivate the older generation of teachers.

The implementation of the measures laid down in the priority national project "Education" had a positive impact on solving the problem of computerization and the use of the Internet in schools in Ingushetia (criterion 7). Article 14 of the Law "On Education in the Republic of Ingushetia" legislatively enshrined the formation and effective functioning of state information systems that play an important

role in the implementation of the innovation process by educational organizations of Ingushetia.

The implementation of the Republican direction "Introduction of modern educational technologies" became an indicator of the implementation of legislation in this area. As a result of joint work with JSC "Ingushelectrosvyaz", all schools are connected to the Internet and have school websites. All organizations of primary general education in the Republic use computer classes, interactive whiteboards, and automated workstations for teachers. Each teacher's room is equipped with computer equipment for filling in electronic journals and diaries (Interviews with Z. I. Kartoeva, head of the Department of general education of the Ministry of education and science of the Republic of Ingushetia, 20.09.2020).

In 2018, the Republic of Ingushetia participated in a competitive selection for grants for the creation of digital and humanitarian education centers within the framework of the Federal project "Modern school "of the national project "Education". As part of the project, it is planned to create by 2024 seventeen centers of digital and humanitarian education in rural settlements and small towns on the basis of highly equipped educational organizations. One of the large-scale platforms for additional education in the field of Internet technologies for children will be "IT-cube" [decree of the government of the Republic of Ingushetia of July 5, 2019 N 369-R "On the need to create a digital education center "IT-cube" in the Republic of Ingushetia"].

A regional information system for the implementation of educational services has been created. They relate to the acceptance of applications, registration and enrollment of children in educational organizations and are carried out with the productive contour of the subsystem of a single portal of state and municipal services. Testing of this service reflected that at present, residents of the republic actively use this service through a single portal of public services.

Work is underway to monitor organizations of primary general education. It includes the activation and use of a free software package, school-based distance education. For the implementation of the national project "Distance education of disabled children studying at home" in the republic, a Center for distance education of children with special needs has been opened.

So, in the organizations of primary general education of the Republic of Ingushetia, large-scale work is being carried out in the sphere of informatization. It is partly constrained by the presence of inaccessible rural schools, the high occupancy of classes, and the low financial capabilities of large Ingush families. However, these difficulties are gradually smoothed out, instilling in the inhabitants of the republic justified hopes for a high level of equipment in Ingushetia with information means.

Criterion 8 concerns the cooperation of organizations of primary general

education with additional education, children's public organizations. In the education system of the Republic of Ingushetia, there are 16 independent organizations of additional education, 592 associations, of which 218 are urban and 374 are rural. The starting age of students is 5 years [5].

The directions of educational activity are artistic, ecological and biological, tourist and local history, technical, sports [6]. There are children's and youth sports schools, physical culture and health clubs, and stadiums. The most popular activities for children aged 5-10 years are artistic, aesthetic and sports activities.

A positive fact of the development of additional education for primary school children in Ingushetia is the updating of its content, forms and technologies of the educational process in accordance with the implementation of the Concept of development of additional education [7], innovative educational doctrine.

The system of additional education in Ingushetia includes 4 blocks of clubtype associations: all-Russian (Republican), children's clubs of organizations of additional education, school clubs, and clubs in the place of residence. Club work is aimed at meeting the interests of younger students, developing their abilities, forming their social experience and readiness to transform it.

Innovative forms of work are grouped into several groups: 1) nature protection events, organization of expeditions, charity events, 2) imitation games that imitate social relations, 3) leisure activities: karaoke competition, dance festival, fairy-tale matinee, theater on Sundays, etc.

Community clubs are one of the most obvious achievements of organizational work with children. Children are involved in cultural events both at the citywide level and at the neighborhood level. The most popular among younger students are "house/ street holidays", "children's day", "family holidays", etc. Clubs have sections with two-shift work, art studios (art, theatre, choreography, arts and crafts), and sections (chess, checkers). There are also paid hobby groups and clubs.

Noting the positive experience of developing additional education for children of primary school age in the Republic of Ingushetia, we note the trend of their transformation from leisure organizations to centers for the development of individual abilities and talents.

We are close to the criterion 10 "Family-school Cooperation". Organizations of primary general education in the Republic of Ingushetia have developed the following innovative areas of work with parents of primary school children:

- mass events with parents, work on the organization of joint socially significant activities and leisure activities of parents and students;

- mass lectures on the traditions of folk pedagogy;

- activity of public parent groups (the institution Council, Board of Trustees, parent Committee, Council of fathers, etc.), associations of parents on family problems (family clubs, school of young parents, Union of parents with disabilities);

- inclusion of social teachers, teachers of additional education, a teacherpsychologist, educators (extended day groups, classes) in work with the family;

- use of various forms of cooperation with fathers, involving them in joint creative and socially significant activities with children;

- development of thematic design for working with the family (corner for parents, Museum of family traditions, etc.).

There are also certain difficulties. Not all parents share the enthusiasm for introducing innovation to the learning and parenting process. Traditional Ingush education conservatively and cautiously introduces innovations. Explanatory work is required in this area.

The overall assessment of the innovation activity of primary education organizations in the Republic of Ingushetia based on the previously selected criteria was made up of indicators placed in table 1.Each indicator was evaluated on a 5-point scale.

Table 1

Assessment of innovative activities of organizations of primary general education in the Republic of Ingushetia

№	Criteria	Indicators
1	Efficiency of management of innovative processes and experimental activities at the level of the Republican Ministry of education and science, municipal education management bodies	5
2	Material and technical equipment of educational organizations	3
3	Introduction of new methods, forms and pedagogical technologies on their basis	5
4	Self-determination of schools in educational programs, list and scope of academic disciplines	5
5	Functioning of gymnasiums, lyceums, innovative educational organizations	5
6	Informatization, use of the Internet	4
7	Competence of teachers in the sphere of pedagogical innovation	4
8	Cooperation of organizations of primary general education with organizations of additional education	5
9	Interaction between school and family on innovation	4

For general evaluation of the implementation of the innovation policy by the organizations of primary education in the Republic of Ingushetia, we have calculated the total arithmetic summation of these indicators and dividing this sum by their number: (5+3+5+5+4+4+5+4):9=4,4. The resulting calculation evaluation "4 points" indicates ongoing innovation activities of organizations of primary education in the Republic of Ingushetia deployed at a number of selected criteria and the prospects for improving the efficiency of the process.

References

1. Tseloeva D. M. Implementation of innovation policy by organizations of secondary general education of the Republic of Ingushetia: PhD thesis. Pyatigorsk, 2016, 177 p.

2. Order No. 433-R of June 30, 2012 "Strategy of innovative development of the Republic of Ingushetia until 2025".

3. Statistical data of the Ministry of education and science of the Republic of Ingushetia. Key indicators of education in 2020.

4. The Development Program of the state educational institution "Gymnasium No. 1" in Nazran for 2017-2025.

5. Materials of the Ministry of education and science of the Republic of Ingushetia, 2019.

6. Monitoring of the education system of the Republic of Ingushetia for 2014.

7. Decree of the Government of the Russian Federation No. 1726-R, September 4, 2014.

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数字环境下以学生为中心的学习转型的机会和问题 OPPORTUNITIES AND PROBLEMS OF TRANSFORMATION OF STUDENT-CENTERED LEARNING IN THE DIGITAL ENVIRONMENT

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本文探讨了高等教育系统数字化背景下以学生为中心的学习问题,这 是对未来的哈萨克斯坦数字教师的专业培训产生积极影响的不可或缺的要 素。事实证明,对于提高以学生为中心的教育潜力的理论和实践基础的阐 述不够充分,它的组织和方法学支持得到证实。

关键字: "未来教师的专业培训", "以学生为中心的学习", "以学 生为中心的学习的转变", "数字环境中的个性化教育形式"。

Abstract. This article examines the problems of student-centered learning in the context of digitalization in the higher education system, which is an integral element that has a positive impact on the professional training of the future teacher of digital Kazakhstan. The fact of insufficient elaboration of the theoretical and practical foundations for improving the educational potential of student-centered education, its organizational and methodological support is substantiated.

Keywords: "Professional training of the future teacher", "student-centered learning", "transformation of student-centered learning", "personalized form of education in a digital environment".

Improvement of the system of training pedagogical personnel is based, as is known, on the existence of two priority areas (training and education). In the context of the national idea "Məңгiлik Ел", the goal of the pedagogical education system is to educate a new generation of teachers, socially active members of society with a high level of national identity, professionalism and competitiveness. The implementation of the idea of improving the professional training of the future

teacher was reflected in the "Concept of pedagogical education," The concept of development of continuous professional pedagogical education in the Republic of Kazakhstan", "The concept of higher pedagogical education of the Republic of Kazakhstan".

Based on the foregoing, it can be stated that the features of introducing SCL into the educational process of higher educational institutions of the Republic of Kazakhstan and the fact that there is no proper reflection in domestic pedagogical research are not considered in the system of training teachers.

However, the formation of the world educational space, wide cultural exchange, intensive search and implementation of student-centered teaching in educational practice require a rethinking of the current forms and content of university education. The new era of the digital economy in Kazakhstan also predetermines a fundamental change in university education. The digital economy sets fundamentally different trends focused on training specialists of a qualitatively different level and requires appropriate skills in the use of innovative and communication technologies from the teaching staff of the university. Therefore, there is an urgent need to implement student-centered teaching in the process of professional training of a modern teacher. The transformed student-centered approach in the digital environment is a significant and demanded level, important for the formation of a highly qualified specialist, since it includes problem-based learning, project-based learning, uses interactive technologies, which allows not only building a personalized learning path in a team environment, but also acquiring the necessary competencies that a graduate will be able to realize in future professional activities.

The reform of educational programs should ensure the possibility of high quality, student-centered and personalized educational trajectories [1].

Personalization as the basis of student-centered learning requires a high degree of student engagement, shifting the focus of responsibility and expectations to the strengths and weaknesses of each student, and then shapes content to meet these needs. The personalization of training should entail the development of methodological, organizational support, as well as a change in the role of the teacher. A pilot study by Sanchez J., Salinas A., showed that students need psychological and pedagogical support with personalized learning in a digital environment [2]. This basis is confirmed by the research of S.L. Loginova "a significant factor in the success of training for students was the emotional support and psychological support of teachers" [3].

So, theoretical comprehension of the issue made it possible to identify problem areas, which are as follows:

- the scientific and methodological foundations for improving the professional training of a future teacher on the basis of student-centered teaching in a digital environment have not been developed;

- there are no mechanisms for transforming student-centered learning into the process of professional training of a future teacher in a digital environment;

Research on the theoretical and scientific-practical development of student-centered learning (SCL):

1. according to the definition of the international organization "Education International", SCL is a type of thinking and culture of a higher education institution, as well as a teaching method that is largely associated with constructivist theories of learning and is supported by them [4];

2. in the European project "Time for a new paradigm in education: student-centered learning" the holistic structure of SCL is presented: - its advantages for students and teachers in the context of the Bologna process [5];

3. in the London Communiqué - student-centered learning is named as one of the priorities for the European Higher Education Area;

4. the Bucharest communiqué of the Ministers of Education of the participating countries indicated the need to create conditions for the development of student-centered learning, the use of innovative methods and a supportive learning environment to involve students and teachers in the management of educational programs at all levels;

5. in the European standards and guidelines for quality assurance (section 1.3. "Student-centered learning, teaching and assessment"), universities are encouraged to ensure an active role of students in the design and implementation of educational programs [6];

In foreign sources, SCL is meaningfully interpreted in almost the same way as in domestic studies, namely as a teaching method (learning) and teaching, in the center of which is the student.

The concept of student-centered learning (SCL) F. Hayward, D. Dewey, C. Rogers, M. Knowles, J. Piaget [7,8,9,10]; theoretical foundations of the concept of the student-centered approach (L.S.Vygotsky, Davydov V.V., Galperin P.Ya., Bondarevsky E.V.); Student-centered approach to teaching as the main principle of higher education (V.I.Baydenko, N.A. Selezneva, M.A. Akopov). Productive approaches to providing a theoretical and technological basis for training specialists in a university environment (A.A. Verbitsky, E.S.Polat, M.I. Ragulina);

Education in the digital age (Marey A., Nikulina T. V., Loginova S. L., Sobolev A. B., Ignatova N. Yu. [11].

Analysis of the studies of the above authors allowed us to draw certain conclusions, which are as follows:

- student-centered learning is aimed at overcoming the problems associated with traditional forms of education, focused on the student and his needs, and is based on such an organization of interaction between the subjects of the educational process, when the maximum possible conditions are created for the development of the participants in this process of the ability to self-education, self-determination, independence and self-realization of oneself in the field of professional activity;

- student-centered learning requires a constant reflective process; it does not have one solution that fits all cases; students follow different learning styles; choice is critical to the effectiveness of student-centered learning; students have different experiences and basic knowledge; students are called upon to control their learning; student-centered learning means "creating opportunities", not "informing"; learning requires collaboration between students and teachers;

- in the process of implementing student-centered teaching, students develop: competence in the field of independent cognitive activity, based on the assimilation of methods of acquiring knowledge from various sources of information; competence in the field of civil and social activities; competence in the field of social and labor activities.

The analysis of the work of Kazakhstani scientists showed the lack of research on student-centered learning/education (SCL) in relation to higher education.

Of course, the fundamental research of the IQAA President Sh.M. Kalanova "Student-centered learning, teaching and assessment: basic principles, parameters and conditions" is the starting point, the key basis at the present stage of education, the implementation of student-centered learning in Kazakhstani higher educational institutions. The substantiated provisions of the peculiarities of the introduction of SCL in the educational process of higher educational institutions of the Republic of Kazakhstan, the assessment of the introduction of student-centeredness during the accreditation of universities are the theoretical and methodological basis of student-centered education. IQAA, the Independent Quality Assurance Agency, directs the educational community that the hallmark of a high-quality institution is the success of the SCL implementation process, where teachers and students play a vital role. Special emphasis is placed on the fact that SCL does not contain and does not offer a universal approach or answer, aims at the need for a continuous process of reflection and flexibility in the implementation of SCL. SCL is all about creating opportunities, not informing. The key aspects of SCL are generally recognized: an in-depth approach to the learning process, with an emphasis on critical and analytical learning and understanding; increased autonomy, responsibility of students; reflective approach to teaching and learning processes [12].

At the same time, it cannot be denied that:

1. "Digitally born" generation of students "are arranged in a completely different way";

2. The "student-centered learning" accreditation standard used in the external assessment process is well known among university staff. Meanwhile, for students, despite their increasing role in the process of university education, it contin-
ues to be an equation with many unfamiliar elements;

3. Most HEIs are in the process of transition from an orientation towards SCL to the development of an SCL culture;

4. improving the quality of preparation of the future teacher as a continuous process still remains at the level of the desired and requires additional efforts to become an irreversible process.

Therefore, the implementation of this project is relevant in connection with the need to find effective ways to improve the process of student-centered learning in a digital environment.

The lack of scientifically grounded concepts for the transformation of student-centered teaching of subjects of the educational process of the university in the context of the ideas of a digital society, as well as the novelty of the use of the term itself and the demand for pedagogical practice in young professional teachers who do not spend time on professional adaptation and retraining determine the relevance and specific semantic content of what is introduced into scientific and pedagogical terminology, the concepts of "transformation of student-centered learning", "personalized form of education in a digital environment."

Today, there is an activity of Kazakhstani scientists and practitioners in discussing and addressing the problem of student-centered education as a reflection of modern approaches to higher education and involves the use of interactive teaching methods, emotional and communicative involvement of students in the educational process of the university.

However, insufficient attention is paid to the direct implementation of the student-centered principle in higher pedagogical education of the Republic of Kazakhstan, despite the fact that it was recognized as fundamental in the Bologna transformations in the design of educational programs.

At the same time, the demand and relevance of its implementation is manifested acutely. A modern university needs to strengthen the criteria that determine the professionalism of the teacher, the willingness to use innovative teaching technologies and knowledge control, as well as the ability to continuously improve teaching skills in the context of student-centered learning.

The current situation in higher pedagogical education dictates the need to introduce the most productive technologies that significantly increase the professional and practical competence of the future teacher. Such, in our opinion, is a personalized form of learning in a digital environment as the basis of a transformed student-centered learning.

An innovative program for the transformation of student-centered learning into the process of preparing a future teacher in a digital environment will help increase the motivation of graduates of pedagogical universities to acquire a teaching profession. The need for the project from the standpoint of the requests of pedagogical practice is determined by the importance of restructuring the professional consciousness of the future teacher, in order to increase his competitiveness; an increase in the number of graduates of pedagogical universities employed in their specialty.

From the point of view of the requirements of pedagogical science, the project is necessary to develop modern approaches to the professional training of teachers in line with the modernization of the system of higher pedagogical education in the Republic of Kazakhstan.

The development of scientific and practical foundations of student-centered teaching as a pedagogical paradigm of digital actualization of the process of professional training of a future teacher involves an appeal to the methods of theoretical analysis and generalization of sociological, psychological and pedagogical research;

The philosophy of student-centered learning is that teachers, students must constantly reflexively consider their teaching, learning and infrastructure systems so as to: update the learning experience of students and ensure the achievement of planned learning outcomes; stimulate critical thinking. In a joint mission, students have been and must remain the center of the educational process with full stakeholder involvement.

Creation of a mechanism for transforming student-centered learning into the process of professional training of a future teacher in a digital environment; will allow to present an algorithm for the development of interaction between the subjects of the educational process of the university, represented by: the unity of methodological approaches (activity and competence); an essential core (reflecting the characteristics of the relationship between objective and subjective, external and internal factors of the development of subjects of interaction, actual and potential, real and possible); a set of laws and the corresponding general and specific principles.

References

1. State program for the development of education and science of the Republic of Kazakhstan for 2020 - 2025. Resolution of the Government of R.K. dated December 27, 2019 № 988.

2. Sánchez J., Salinas A., Contreras D., Meyer E. Does the new digital generation of learners exist. A Qualitative Study [Electronic resource] // British journal of educational technology. 2011. № 42 (4). P. 543–556. Access mode: https://www. researchgate.net/ publication/227793574 3. Loginova S.L. Digitalization of higher education: the main contradictions // Continuing education: theory and practice of implementation. Materials of the II International Scientific and Practical Conference. Ekaterinburg, 2019. P. 104— 107

4. The European Higher Education Area in the new Decade. Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, available at: https://www.eurashe.eu/library/modernis-ingphe/Bologna_2009_Leuven-Communique.pdf (accessed 17.06.2017).

5. Communiqué of the Conference of Ministers of the European Higher Education Area, Bucharest, Romania, April 26–27, 2012 [Electronic resource]. URL: http://www.bsu.by/Cache/Page/172203.pdf (appeal date: 17.06.2017).

6. Report of the European Commission «Improving the quality of teaching and learning in Europe's higher education institutions», available at: http://ec.europa.eu/dgs/education_ culture/repository/education/library/reports/modernisation_ en.pdf (accessed 17.06.2017).

7. Rogers C. R. Freedom to Learn for the 80's. Columbus Charles Merrill Publishing Company, 1983. 312 P.

8. Knowles M. S. Self-Directed Learning: a Guide for Learners and Teachers. N. Y.: Association Press, 1975. 135 P.

9. Piaget J. Psychology of Intellect. M.: Peter, 2004. 192 P.

10. Marey A. Digitization as a paradigm change [Electronic resource]. Access: https://www.bcg.com/ru-ru/about/bcg-review/digitalization.aspx.

11. Sobolev A. B. Change or leave. Digital education challenges university teachers [Electronic resource] / A. B. Sobolev // Electronic newspaper "Search". 2018. № 1-2. Access: http://www.poisknews.ru/theme/edu/31969/.

12. Kalanova Sh. M. National system and educational standards of higher education in the Republic of Kazakhstan: national report. - Ed. 2nd, rev. and add. - Moscow: ITSPKPS, 2009. - 117 P. DOI 10.34660/INF.2020.36.17.007

儿童社会适应不良发展的危险因素 RISK FACTORS IN THE DEVELOPMENT OF SOCIAL MALADJUSTMENT IN CHILDREN

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确定了儿童社交失调的危险因素,并提出了他们的分类:家庭危险因素,学校危险因素,媒体危险因素。已经确定并描述了危险因素对儿童的行为,沟通,活动的影响。

关键词:社会危险因素;儿童的社会适应不良

Abstract. The risk factors of social maladjustment of children are identified, their classification is presented: family risk factors, school risk factors, risk factors of the media. The influence of risk factors on behavior, communication, activities of children has been identified and described.

Keywords: social risk factor, social maladjustment of children.

The problem of social maladjustment of children continues to remain relevant in the context of rapid transformations in the public life of the state. New circumstances of social interaction are caused not only by objective changes aimed at the socio-economic development of the country, but also by the consequences of the pandemic of the new coronavirus infection, as a result of which not only the health care system, education, social protection of the population are forced to rebuild, but also there is a transformation of the value system of society. In the present conditions, children are under the increasing influence of various social risks, which are catalysts for the development of their social maladjustment. Social maladjustment of a child means insufficient development of his ability to adapt to the conditions of the surrounding society, therefore, it is necessary to reliably establish the factors that pathogenically affect this process.

Purpose of this work is the substantiation of factors affecting the process of social adaptation of children, a description of the risks of their pathogenic influence. The experimental group consisted of 118 disadvantaged families with

children, the research was carried out by methods of pedagogical observation, conversation, interview.

Risk factors were considered in three spheres of the life of children, as we defined family, school, and the media. Based on this, three groups of factors were identified: family risk factors, school risk factors, and media risk factors.

To the group of family risk factors, we attributed the parents' alcohol or drug addiction, their immoral and/or dependent lifestyle; intra-family conflicts; family abuse (physical, mental, sexual abuse, neglect of the child's needs); lack of parental control; family lifestyle, isolated from society. In the course of the study of families of the experimental group, maladjustment manifestations were recorded in children exposed to family risk factors. These children acquire the experience of using drugs early; there are often cases of their distribution among their peers for money, which is then spent on the purchase of alcohol, cigarettes, drugs. The development of other addictions - alcoholic, tobacco, gaming - has been established. In addition, early onset of sexual activity and promiscuous sexual intercourse were recorded.

Children who are victims of abuse in their families are themselves a source of aggression towards others, which is expressed in violent fights, humiliation and insults of both peers and adults. The lack of parental control only expands the scope for maladapted behavior of children, which includes truancy, begging, stealing. The study showed that children of criminal parents are several times more likely to commit offenses than children from law-abiding families. Children from families with a socially closed lifestyle experience pronounced difficulties in communicating with other people and often become objects of authoritarian or directive influence, in which the child is influenced in order to achieve control of his behavior and actions. From an early age, dependent parents instill in their children the experience of organizing their life at the expense of the state and caring people. Therefore, children have vague ideas about their future profession, low motivation to learn, do poorly, violate school discipline, and conflict with teachers and educators.

In the group of school risk factors, we included the low intragroup status of a teenager in the class; social stigma; bullying; conflicting relationships with teachers and classmates; antisocial behavior of friends-classmates (use of alcohol, drugs, committing offenses). Low intragroup status was revealed in the attitude of classmates to children of the experimental group. It was found that there are no leaders among them, two-thirds are in the middle-status position, and one-third in the low-status position. Uncommunicative, timid children were ignored and isolated, aggressive ones - boycotted by classmates. The data was obtained that children are exposed to social stigmatization - "labeling", offensive nicknames, nicknames indicating social disadvantage, failure, nationality: *"penniless"*, *"fatheaded"*, *"outlander"* etc. Stigmatization of low-status children was often accompanied by bullying - bullying with the use of emotional pressure, physical torture. Bullying methods were very diverse: offensive notes, damage to clothing and textbooks, public bullying. Cases were recorded when children were soiled with mud, pushed into pits, from which they could not get out on their own, and publicly undressed. Bullying victims rarely complained about their bullies and hid what was happening from their parents and teachers. Some of them stopped going to school, several suicide attempts were recorded. Others found antisocial alternatives to learning, such as becoming members of criminal groups in which they did not feel rejected.

The group of factors of the media, including the Internet and social networks, includes such risks as watching scenes of violence, cyberbullying, involving adolescents in violent and life-threatening games in virtual and real world; recruitment to prohibited organizations and communities. For example, it was found that the children of the experimental group not only watched and commented on the videos on display, which depicted bullying of children and adults, but also filmed fights themselves, cases of humiliation for further posting on Internet sites in order to get "likes" - approvals from other subscribers. With the help of the Internet, children broadened their ideas about narcotic substances, ways of acquiring and using them. Therefore, children from families of the experimental group not only knew the names of drugs, for example, "snow", "crystal", "salt", but also the peculiarities of their effect on a person after use.

Every third child in the experimental group was subjected to cyberbullying. These were offensive and mocking posts on the "wall" in social contacts, placing deliberately false information, dislikes. However, children from disadvantaged families were subjected to cyberbullying not only from friends and acquaintances, but also from absolutely strangers, the number of which is in the hundreds. In the course of cyberbullying, children are subjected to humiliation, insults, threats of violence, which they were afraid to inform their parents, teachers and even their friends about. Observations have shown that the maladaptive consequences of cyberbullying are suspicion, self-doubt, suppression of volitional qualities, and social lack of initiative.

We obtained data that in the Internet space children are involved in cruel and life-threatening games, the participation in which was carried out both in virtual and real life. Examples of such life-threatening games were the "Choking game" game, during which the player is briefly strangled by another participant; game "Disappear for 24 hours", in which children leave the house without warning, blocking all means of communication with him, after which they post a report on their "adventures" to the network.

Research has shown that children participate in suicidal play such as "Blue

Whale", "Wake Me Up at 04:20". The content of these games consists in the sequential performance of a number of tasks, each of which gradually brings the child closer to committing suicide. If a child, on his own initiative, stops participating in the game, then he is exposed to psychological pressure, threats that lead the child into a depressive state.

It was also found that the active and uncontrolled use of Internet sites by children in some cases led to online communication with criminals, who first built friendly communication with the object of their illegal intentions, and then recruited children into prohibited organizations. For example, several people were recruited into the organization "AUE" (prisoners' Urkagan unity), whose activities were aimed at creating gangster groups consisting of minors.

Conclusions. Thus, our study confirmed the assumption that risk factors associated with the influence of a dysfunctional family, pathogenic school life, uncontrolled receipt and use of information obtained from Internet resources correlate with manifestations of social maladjustment in children exposed to their influence.

References

1. Zenko N.N. Approaches to the classification of students from the categories of social risk // Bulletin of Polotsk State University. Series E: Pedagogical Sciences. 2019. № 7. P. 12-16. P. 13.

2. Faizullina K.A. Social and pedagogical rehabilitation in psychological and pedagogical research // Modern problems of science and education. – 2020. – № 3; URL: http://science-education.ru/ru/article/view?id=29815 (appeal date: 05.12.2020).

3. Yakovleva, N.F. Biographical method in the study of the value selfdetermination of orphans / N.F. Yakovleva // Methods of pedagogical research at the post-nonclassical stage of the development of science: a collection of articles of the VII All-Russian scientific-practical conference "Pedagogical science and modern education." – Part 1. - SPb.: Publishing house of the A.I. Herzen RSPU, 2020. – P. 174-178. DOI 10.34660/INF.2020.17.90.008

大学前培训阶段与外国学生的策展工作 CURATORIAL WORK WITH FOREIGN STUDENTS AT THE STAGE OF PRE-UNIVERSITY TRAINING

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本文在由来俄罗斯接受高等教育的外国公民组成的研究小组中研究了策 展人在筹备学院工作的特殊性和重要性。 分析了策展工作在社会文化能力 形成中的作用,这是成功的跨文化交流的重要组成部分。 作者分享了他们 在组织和开展策画工作中的实践经验,这些工作旨在适应新的生活条件和 俄罗斯大学教育过程的特殊性。

关键词:教育过程,研究小组,监督,组织策展工作的方法,大学培训的教育目标,社会文化适应

Abstract. The article examines the specificity and importance of the curator's work at the preparatory faculty in study groups consisting of foreign citizens who came to Russia to obtain higher education. The role of curatorial work in the formation of socio-cultural competence, which is an essential component of successful intercultural communication, is analyzed. The authors share their practical experience in organizing and conducting curatorial work aimed at adapting both to new living conditions and to the peculiarities of the educational process in a Russian university.

Keywords: educational process, study group, supervision, methodology for organizing curatorial work, educational goals of training at a university, sociocultural adaptation

In Russian pedagogical science, serious attention is paid to the history, theory and practice of curatorial activities in higher educational institutions.

The task of the curator of the study group is to help first-year students to adapt to the new conditions for them associated with the organization of the educational process, to solve (or better -prevent!) The problems associated with a change in their social status, environment, and for some students - living conditions. There is no doubt that foreign students who come to Russia to study at the university experience even greater difficulties than yesterday's Russian schoolchildren, since, in addition to the above difficulties, this contingent also faces the need for socio-cultural adaptation. That is why the institution of supervising is important for creating optimal conditions for living and studying in a completely new living environment for foreigners.

The curator is a mentor, educator of the student team of the group. For a teacher working at the preparatory faculty with young people who often do not have a complete understanding of the country they have come to, the system of student work in a higher educational institution, supervision is the most important mechanism of interaction with students, allowing not only to solve educational tasks, but also to be a conductor of "soft power" in the work on the formation of a positive image of Russia in the world.

The activities of the curator at the Tambov State Technical University are regulated by the "Regulations on the curator of the student study group of the Tambov State Technical University". According to this document, the curator of the study group is obliged to "plan the work (for the academic year, semester, month) in accordance with the Comprehensive Plan of Educational Work of the University and the Faculty's Action Plans; systematically monitor the progress of students, find out the reasons for the decline in academic activity and take timely measures to eliminate them; provide comprehensive assistance in the form of creating a student asset within the study group from the most sociable, bright personalities; provide pedagogical guidance to student self-government, coordinate the work of public organizations in the group; to study the individual characteristics of students in a group, using the pedagogical analysis of documentation, student survey, questionnaires, etc.; to assist students in the implementation of their scientific and creative abilities; to provide assistance to the dean's offices during on-farm work at the university and work on cleaning and landscaping the university territory" [1].

The activity of a curator in a group of foreign students of the preparatory faculty has its own specifics and imposes on the teacher additional functions and responsibilities, in addition to those noted in this document, since, along with universal educational, social, administrative and educational tasks, he has a number of specific tasks that often become priorities since due to the peculiarities of working with foreigners.

The main goal of the curator's work is the adaptation of foreign students to study and living in the Russian Federation, preventive and educational work to comply with the legislation of the Russian Federation, the university charter and the rules of living in a hostel. In addition, the curator of the group of foreign students faces such tasks as improving the academic performance and quality of study of students and the level of discipline, involving foreigners in active participation in the social and sports life of the faculty, developing the organizational and creative abilities of each student in the group, creating a favorable microclimate in the group.

The priority is "education of an active personality, ready to communicate with students of different nationalities on the principles of friendly attitude, help and mutual assistance ..." [2, p. 178], as well as the formation of such a personality, which in the future will become a translator of the positive image of our country throughout the world. And the movement towards this goal begins already from the moment the curator meets the group.

In order to comprehensively cover the work in the group, at the Faculty of International Education of the Tambov State Technical University, it is customary to maintain a "Curator's Work Plan" throughout the academic year, consisting of four parts: 1) work plan, 2) student card, 3) student questionnaire and 4) report on the work done.

The curator's work plan includes nine types of work, each of which consists of a number of activities; depending on the specific situation, the set of activities may vary, but the types of work do not change.

The student's card is filled in by the student and the curator together. The student indicates the last name, first name, home country, gender, if desired, the phone of the parents, necessarily his phone, skype, e-mail, WhatsApp, etc. contact information, education, future specialty. In the future, during the academic year, the curator records in this card individual work with the student, and at the end of the academic year gives the student a brief description of the results of joint work.

The student's questionnaire includes a number of questions, answering which he reports from which settlement he arrived, about the composition of his family, about the place of work of his parents, about the level of education, about life plans after graduating from the preparatory faculty, as well as after completing education in Russia, about holidays important for a foreigner, about interests and hobbies, about the experience of independent life (without parents), etc. Such information enables the curator to rationally plan educational work, carry out activities taking into account the individual inclinations and hobbies of students, and form a student asset.

In the Report on the conducted events, all the work done by the curator is recorded, indicating the date of the event, its topic and content.

Each curator in the entrusted group is engaged in work on socio-cultural, socio-psychological adaptation, on adaptation to the conditions of the educational process and to living conditions in hostels and in rented apartments, on organizing a medical examination, on familiarizing with Russian cultural traditions, on expanding the horizons of students, leads vocational guidance work, promotes a healthy lifestyle. All these types of work are interconnected, and therefore are carried out in an integrated and systematic manner.

It should be noted that at the preparatory faculty, as a rule, teachers of the

Russian language become curators. This is due to the fact that it is the teacher of the Russian language who is in direct contact with the students more than other teachers. The work of the curator in the group begins with the provision of social and psychological assistance to newly arrived foreigners, who at the beginning of their stay in Russia may be somewhat disoriented. Naturally, the primary task for them is the organization of comfortable living conditions and the satisfaction of vital needs in a new environment. The day of getting to know the group is the beginning of solving all the primary organizational tasks, such as getting to know the university building where the lessons are held, with the class schedule; assistance in obtaining an electronic pass to the university buildings and dormitories; issuing a library card and receiving textbooks from the library; getting a local sim card; escort to the bank for opening an account and issuing a debit card, etc. If students have any unresolved questions or problems of a domestic nature, then here too the curator provides assistance, who not only acts as an intermediary between the commandant of the hostel/tenant and the student, but also when necessary, accompanies him on a shopping trip to buy, for example, warm clothes or items needed on the farm.

A compulsory event is the organization of a visit to the student's polyclinic for a fluorographic examination and a blood test for HIV, serological tests for the strength of immunity to the measles virus (JgG and JgM).

During a visit to medical institutions, students are introduced to the procedure for the provision of medical services within the scope of health insurance. The curator also provides assistance in case of need for foreign students to visit narrow medical specialists, which may consist in making an appointment with a student and accompanying him to a medical consultation. In case of hospitalization, the curator, in addition to visiting the patient, makes contact with the attending physician, explains to the student the course of treatment, the need for medical procedures, etc.

Since students often do not have the experience of independent life, then, finding themselves in the absence of control from parents, older family members, they may not have the skill of rational planning their working day, and therefore the task of the curator is to give the necessary recommendations, monitor the rational distribution of time, to develop skills of independent work in extracurricular time. Conversations about the inadmissibility of alcohol and drug use, questionable behavior, and the elimination of bad habits should become regular.

The curator of the study group has the right to attend all types of training sessions of the group. Contact with teachers of special disciplines allows, if necessary, to correct the behavior of the student, which contributes to an increase in academic performance.

Curatorial work takes place in parallel with the educational process, and the

primary educational task of the teacher is to create and maintain a psychological climate in the group that is comfortable for both sides of the educational process. Young people of different nationalities, cultures and traditions, religions, belonging to different social strata, speaking different languages should become a team brought up in the spirit of internationalism, tolerance, benevolence and mutual assistance. The curator plays a vital role in this process. Not only interpersonal relationships in the group depend on his ability to convey to students the basic principles of mutual understanding and respect for each other, but also the success of the entire study as a whole - both at the preparatory faculty and after graduation. And here out-of-class work with students plays a huge role.

Extracurricular work is various kinds of informational and educational conversations that broaden the horizons and knowledge about our country, joint visits to museums, theaters, exhibitions, various kinds of excursions.

It is traditional for foreign students of Tambov State Technical University to participate in the Days of National Cultures, which are regularly held at the preparatory faculty, in cultural events dedicated to Russian holidays and traditions (New Year and Christmas, Maslenitsa, Day of Slavic Written Language and Day of the Russian Language, etc.). Students of the preparatory faculty are actively involved in the sports events of the university. During the winter and summer holidays, the faculty organizes events for students that are not only entertaining, but also educational.

Taking care of the implementation of the scientific and creative abilities of students, the curator of the study group organizes their participation in competitions and Olympiads organized both on the basis of the Tambov State Technical University and other universities of the Russian Federation.

It is significant that even after graduating from the preparatory faculty, students who decided to continue their studies at the Tambov State Technical University continue to participate in the life of the faculty. Often, graduates of the sub-faculty have been in contact with their curators for many years, to whom they have the best feelings.

Extracurricular curatorial work with foreign students is an important component of the educational process, along with classroom studies, it is an effective means of teaching the Russian language. The teacher systematically demonstrates to foreigners how communicative tasks are solved in real communication situations (in a clinic, in a canteen, in a store, in a museum, on the street, in transport, etc.), which helps them to master the necessary language competencies, to acquire the skills of independent analysis information. In addition, extracurricular work is a means of developing foreign students' interest in learning, involvement in the life of the faculty and the university, as well as a tool for forming a positive image of the Russian teacher, Russian education and Russia in the world.

References

1. Regulations on the curator of the student study group of the Tambov State Technical University https://docviewer.yandex.ru/view/92471208/?page=2&* (appeal date: 15.10.2019).

2. Koshkina E.E. The role of a curator during the adaptation period of foreigners studying at the preparatory faculty / E.E. Koshkina // Main problems and directions of educational work in a modern university: abstracts of the All-Russ. sci.-pract. conf. – Barnaul, P. 178 -179. 2010. – 357 P. https://journal. altstu.ru/media/f/old/2010/02/pdf/178koshkina.pdf 9 appeal date 15.2-.2019)

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跨文化空间作为发展外语课学生软技能的手段 INTERCULTURAL SPACE AS A MEANS OF DEVELOPMENT OF SOFT SKILLS OF STUDENTS IN FOREIGN LANGUAGE LESSONS

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本文介绍了"文化对话"技术,该技术是在外语课上培养学生软技能的 一种手段。作者在发展外语交际能力的背景下考虑了这一过程。本文介 绍了一些任务片段,旨在提高小学生的沟通素养,管理技能,有效的思维 能力和自我管理能力。

关键字: 软技能, 学生, 外语课, "文化对话"技术

Abstract. The article describes the technology "Dialogue of Cultures" as a means of developing soft skills of students at the foreign language lessons. The authors consider this process in the context of the development of foreign language communicative competence. The article presents some fragments of tasks that are aimed at developing the communicative literacy of schoolchildren, managerial skills, effective thinking skills and self-management.

Keywords: soft skills, students, foreign language lesson, "Dialogue of Cultures" technology.

To be successful today, deep knowledge and experience is not enough. Special skills are required, which today are called "soft skills" or "flexible skills" or soft skills. Most often, it is the English-language term that is used, since in the Russian language there is no such capacious concept denoting both communication skills, and the skills of negotiating, self-presentation, and speaking. They are talked about today more than ever before. Indeed, they are productive, necessary and in demand in the modern labor market.

Soft skills are a collection of non-specialized skills that affect the effectiveness of a person's activities. Soft skills are life skills. They are multifunctional. Mastering them makes it possible for a person to increase the effectiveness of the activities he performs, easily switch from one type of activity to another, find language with other people, be stress-resistant, think systematically, solve emerging difficulties, regulate feelings and emotions, ask questions, etc. The list of soft skills is quite extensive.

Soft skills act as a "complex" of skills. Thus, the work on their development should take place in a complex, simultaneously. Only in this case they will favorably influence the development of each other. Before you start developing soft skills, you need to decide what skills are soft skills. In determining them, we turn to the research of I.M. Kungurova,

E.V. Slizkova and others, according to whom soft skills include:

"- basic communication skills, or communication literacy ... that contribute to the development of relationships with people, help maintain a conversation, effectively behave in critical situations when communicating with others;

- self-management skills ... that help to effectively control your condition, time, processes;

- the skills of effective thinking, or intellectual thinking ..., which are responsible for managing processes in the head, help to make their own life and work more systemic;

- management skills, or foresight management ... which are responsible for planning, motivating, managing their own changes, etc. "[1]

With regard to the study of foreign languages, possession of this set of skills may indicate a high level of formation of the communicative foreign language competence of students, socialization and self-realization in the process of intercultural communication in a modern multicultural society. Possession of this complex contributes to the expansion of knowledge about the socio-cultural specifics of both one's own country and the country of the target language, building various models of speech and non-speech behavior in accordance with a particular situation, the development of foreign language communicative competence, etc.

As practice shows, in modern conditions of constant expansion of international contacts, the ability to speak and write correctly in a foreign language is no longer enough and even ineffective. It is necessary to competently use the norms of behavior - both verbal and non-verbal. A so-called complex of soft skills is needed, which makes the communication process more efficient and productive. Formed communication skills today determine the success of a person in society, supported by a complex of soft skills - the success of his activities, its effectiveness and productivity.

The problem of developing soft skills today attracts researchers from various

fields: sociology, management, business, psychology, pedagogy, etc. The process of developing soft skills in the course of teaching a foreign language will become more efficient if the technology "Dialogue of Cultures" is used. Table 1 shows groups of soft skills and the most effective methods of the "Dialogue of Cultures" technology aimed at their development.

Table 1.

Soft skills	Techniques of the «Dialogue of Cultures» technology
"Communication literacy: the ability to listen, persuade and argue, negotiate, conduct presentations, public speaking, self-presentation, teamwork, focus on results, etc.» [1].	Simulation of situations, development of possible storylines of dialogue, problem- conflict issues, discussion, essay, presentation
"Skills of self-management: managing emotions, stress, self-development, planning and goal- setting, time management, energy, enthusiasm, initiative, persistence, reflection, using feedback» [1].	Goal setting, problem-conflict issues, planning activities, discussion, essays, reflection
"Skills of effective thinking: systemic, creative, structural, logical, design, tactical and strategic thinking, search and analysis of information, development and decision-making» [1].	Problem-conflict issues, game situations, discussion, essays
"Management skills: execution management, planning, setting tasks, motivation, monitoring the implementation of tasks, giving feedback, managing projects, changes, etc.» [1].	Discussion, essays

Further, we will consider in more detail how some of these techniques are implemented in the educational process in a foreign language lesson. So, it is advisable to model different communicative situations that correspond to the themes of the dialogue of cultures, and offer students to build a model of their speech and non-speech behavior with the proposed conditions, while providing for the development of possible storylines. For instance:

- Your pen-friend from Great Britain has started a new blog for youngsters. He'd like his blog to be interesting and popular. For this purpose he studies the interests and preferences of teenagers from different countries. He is interested in your personal interests and hobbies. You are to tell or write him about you as much as possible (the form of self-presentation you decide for yourself).

The following development of storylines is possible here:

Tell him about your personal interests and hobbies.

You live in a big city.

You live in the country.

Will your personal interests and hobbies be different? What way? Can you

explain what it depends on?

- You are a member of a tourist group. Ask your group leader about the programme of your visit to Great Britain. Ask him questions about the country, its capital, its cities and national traditions. Answer his questions if any.

The following development of storylines is possible here:

You are interested in:

- science;

- sports;

- music;

- literature;

- etc.

Situations of this kind help schoolchildren to compare the features of people's lifestyle, way of life, traditions and customs that have developed in our country and in the country of the language being studied. Dialogue topics offered to students should be close, understandable and interesting to them. Here are some of them as an example:

- You haven't decided yet what you'd like to be. Discuss the issue with your pen-friend from Great Britain.

- The new film is on, but not in Russia. Discuss it with your pen-friend from Great Britain, who has already watched it.

- The new book of your favourite English writer has just appeared, but it's not translated into the Russian language. Discuss it with your pen-friend from Great Britain.

- You are going abroad in summer, but you haven't decided what destination to choose. Discuss it with your pen-friends from different countries.

The implementation of the technology considered in the article contributes to the formation of such qualities necessary for intercultural communication in schoolchildren as: cultural impartiality, tolerance, sociocultural observation, readiness to communicate and cooperation with people of their own and other cultures, speech and sociocultural tact and politeness. Here we can also include soft skills, the development of which in a foreign language lesson cannot be limited only by the framework of the native culture. The abilities of students will expand significantly if the process under consideration takes place in parallel with the development of foreign language communicative competence.

In the classroom, while playing situations of communication, dialogues of various orientations, students learn to navigate the socio-cultural aspects of the life of people in their country and the country of the language being studied. It is important to constantly expand the subject of socio-cultural orientation. The proposed themes should have a new, modern, dynamic sound. For instance:

1. Modern world of professions, some problems of career choice.

2. New information technologies, Internet-resources. Their advantages and disadvantages.

3. Patriotic education.

4. Languages in the modern world.

5. New trends in fashion (music, literature, etc.).

You can also use problem-conflict questions here:

- What professions will be popular in 30 years?

- Can all the people on the planet speak one language? What language will it be?

- What are the most efficient ways of patriotic education? Are you a patriot? Why do you think so?

- What is your grandparents' attitude to new gadgets?

Teaching a foreign language in the context of global education aims to develop the student's communicative literacy, a sense of tolerance to other views, customs, traditions, the ability to see the peculiarities of their culture in the context of the cultures of other nations. The development of communicative literacy of schoolchildren in the process of teaching dialogical speech involves adhering to the following algorithm:

1. Establishing contact with the interlocutor, exchanging information to solve a communicative task.

2. Bringing the dialogue to its logical conclusion.

3. Mutual expression of personal attitude to the issue under discussion.

4. Orientation and adequate interpretation of the facts of one's own and foreignlanguage cultures.

6. Manifestation of a sense of tact and tolerance.

In linguistic communication for speakers, it is necessary to master the whole complex of effective communicative behavior.

The most productive in the lesson is the group form of work, which provides the necessary conditions for the active process of socialization of schoolchildren. Group work involves participating in a discussion of various situations, for example: Russia is a very big country and there is an opinion that the origin of the Russian community is in the vastness of the Great Russian Plain. Russians think and act big. Is that so? Practice shows that such situations allow students to realize themselves and realize their personally significant potential.

Oral communication on the topic of "Patriotic Education" is stimulated by the following situations:

- Do you agree that patriotic education is a part of the contemporary life?

- What is a patriot?

- What kind of people are those who can be called real patriots?

- Can you give some examples of people who you consider to be real patriots?

- What are the traits of a patriot? Create a discussion on the topic.

To help, students receive cards with a set of speech cliches that provide the speech side of the task being performed and make the discussion more lively, evidence-based and relevant. This is how effective thinking and management skills are developed. A card with a set of speech clichés might look like this:

	1 1 0			
	I'm going to compare and contrast			
	I've found some similarities and difference between			
	Let me justify my view			
	I would (do) to solve the problem			
	In my opinion,			
	It seems to me			
	To my mind,			
	!!! Try to co-operate with your partners,			
ļ	listen carefully to the advice and follow the instructions			
	-			

The technology we are considering involves the following types of work maintaining the heading "In Your Culture", filling out the "Link List", writing an essay (the topics of the proposed essays can be formalized in the form of problematic and conflict questions), which significantly encourages students to actively search for information about their own country, to its analysis, as well as information about the country of the target language with subsequent comparison.

It is through the appeal to the life and culture of our native country that we manage to solve the important tasks of patriotic education. This is one of the ways to create conditions for a dialogue of cultures, stimulating students to increase and deepen the volume of knowledge about their country and about other countries. In modern reality, this is extremely important.

Making a conclusion, we note that organizing a dialogue of cultures in a lesson is both a condition for the successful mastery of the English language, and most importantly, the development of soft skills, which is extremely important in modern reality, since a person with developed soft skills will always be recognized, successful and productive.

References

1. Batsunov, S.N. Modern determinants of soft skills development / S.N. Batsunov, I.I. Derech, I.M. Kungurova, E.V. Slizkova // Concept. 2018. №4. URL: https://cyberleninka.ru/article/n/sovremennye-determinanty-razvitiya-soft-skills (appeal date: 01.11.2020).

2. Kungurova, I.M. Formation of the bachelors' soft skills while studying foreign language / E.V. Slizkova, I.M. Kungurova, D.N. Fadich // The European Proceedings of Social & Behavioural Sciences. - 2018. - № 110. – P. 941.

3. Kungurova, I.M. Intergrating the English language teaching and learning processes with soft skills / I.M. Kungurova, E.V. Slizkova, D.N. Fadich // XXVIII Ershov readings: collection of scientific articles / ex. ed. S.A. Elantseva. – Ishim: Publishing house of the P.P. Ershov IPI, branch of the UTMN, 2018. - P. 58-60.

4. Kungurova, I.M. Soft skills: new challenges for the youth / I.M. Kungurova, E.V. Slizkova, D.N. Fadich // V Christmas readings: interuniversity collection of scientific and methodological articles / ed. G.V. Silchenko. – Ishim: Publishing house of the P.P. Ershov IPI, branch of the UTMN, 2018. – P. 102-107.

5. Kungurova, I.M. Building soft skills by means of training / E.V. Voronina, I.M. Kungurova, E.V. Slizkova // XXIX Ershov Readings. Pedagogical Education: Challenges of the Time: coll. of scientific articles / ex. ed. S.A. Elantseva. – Ishim: Publishing house of the P.P. Ershov IPI, branch of the UTMN, 2019. - P. 20-21.

6. Kungurova, I.M. Strategies of speech behavior in the English-speaking environment / I.M. Kungurova, D.N. Fadich, Yu.O. Chernega // XI Cyril and Methodius Readings: a collection of scientific articles / ed. G.V. Silchenko. – Ishim: Publishing house of the P.P. Ershov IPI, branch of the UTMN, 2019. - P. 209-213.

7. Kungurova, I.M. Dialogue of cultures as a means of forming tolerance in foreign language lessons // I.M. Kungurova, E. D. Nazderkina, D.N. Fadich // XIII Cyril and Methodius Readings: a collection of scientific and methodological articles / ed. G.V. Silchenko.– Ishim: Publishing house of the P.P. Ershov IPI, branch of the UTMN, 2020. - P. 35-41.

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教学知识翻译方法演进的研究方法论 METHODOLOGY OF RESEARCH OF THE EVOLUTION OF PEDAGOGICAL KNOWLEDGE TRANSLATION METHODS

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本文讨论了我们对翻译教学知识方式演变的研究方法。 也就是说,描述性方法旨在对教学知识翻译方法的演变进行实证研究,以及与我们研究的现象动态相关的规范性方法。 至于我们工作的方法论知识的结构化,它体现在几个层面:哲学、一般科学和具体科学。

关键词:方法论、教育学知识、描述性方法、规范性方法、同步方法、历时方法。

Abstract: this article deals with the methodology of our research on the evolution of ways to translate pedagogical knowledge. Namely, descriptive methods aimed at an empirical study of the evolution of methods of translation of pedagogical knowledge, and prescriptive methods related to the dynamics of the phenomena we study. As for structuring of the methodological knowledge of our work, it is reflected on several levels: philosophical, general scientific, and specific scientific.

Keywords: methodology, pedagogical knowledge, descriptive methods, prescriptive methods, synchronous methods, diachronic methods.

The theoretical study of any phenomenon is determined by its methodology. According to E. G. Yudin, methodological knowledge can come in two forms: descriptive (scientific and cognitive description) and prescriptive (normative, prescriptive, recommendatory) [8; 127]. In justifying the methodology of our research, we intend to use both forms. By means of a descriptive one we try to present a set of knowledge about the evolution of methods of translation of pedagogical knowledge, including a theoretical explanation of the essence (internal content) of this phenomenon, its structure and laws of cognition. The prescriptive form reflects goal-setting and solving constructive problems in our research.

Its philosophical basis is dialectical materialism, which originated in the 1840s

(K. Marx, F. Engels (Germany), V. I. Lenin, V. G. Plekhanov (Russia), which reveals dialecticism and the evolution of human knowledge and ways of translating it in close connection and mutual conditionality, development and change, correlation of theory and practice, the struggle between the new and the old. This struggle drives thought and leads to its transformation, the development of knowledge. Its essence is deeply dialectical: the development of ways to translate pedagogical knowledge can be explained from the point of view of the transition of its quantitative changes (volume) to qualitative ones, the presence of periods of stability, jumps, denial of the effectiveness of old methods, repetition of the original state, ascent to concentricity.

In the context of historical materialism, the scientific theory of knowledge is considered as a generalized history of knowledge, in which each concept, category, as well as ways of translating pedagogical knowledge are deeply historical. The study of the phenomenon of translation of pedagogical knowledge is impossible without an analysis of socio-historical practice and production.

This analysis was developed in detail in Soviet pedagogy. M. A. Arsenyev, N. K. Goncharov, V. E. Gmurman, M. A. Danilov, F. F. Korolev, A. I. Piskunov, Z. I. Ravkin, and others wrote about the need to bring historical-scientific and theoreticalmethodological research closer together. As a small digression, we note that today historical and pedagogical research is criticized because of their authors ' excessive enthusiasm for descriptive and empirical research, inappropriate historical Parallels, erroneous references to concepts and facts of the past, the gap between historical and logical analysis of the problem, and the lack of an innovative product. Agreeing with this criticism, we recall, however, the visionary words of F. F. Korolev, who argued that forgetting the principle of historicism in connection with Hobbies with new methods can lead to deformation of pedagogical research [2; 91]. A. I. Piskunov's identical opinion on this issue sets the methodological and program vector for our research. The scientist called for taking into account the socio-economic conditions of the epoch, analyzing the evolution and transformation of the theory and practice of education and upbringing in each historical period [5; 52].

It is obvious that theoretical thinking is a historical product. Accordingly, the principle of historicism is a reliable tool for theoretical knowledge. The merit of this principle is the evidence-based formation of regularities in the functioning of the object of research, taking into account the factors affecting it and the stages of its development. The background of any research is the historical experience accumulated and generalized in theoretical terms. Constantly growing, it acts as a means of analyzing the rapidly changing reality. We believe that the historical Foundation of modern pedagogical research allows us to set fundamentally new problems and effectively solve them.

Another philosophical direction, whose General methodological attitudes reflect the theoretical essence of our research, is evolutionism. Its founder was Ch. Darwin (1809-1822), who founded the principle of the development of wildlife. According to this principle, the objective world and the changes occurring in it are considered as internally determined. The principle of development formed the basis of the Darwinian theory of evolution and defined the essence of many processes in natural science and other Sciences.

In presenting the philosophical foundations of our research, we have come closer to the theory of knowledge-epistemology (Greek. gnosis-knowledge and logos-teaching). Paraphrasing the words of V. A. Lektorsky [3; 91] about its "critical reflection on knowledge", we see a critical reflection of epistemology on pedagogical knowledge. Using its conceptual categories and classification by Yu. M. Khrustalev [6; 68] types of human knowledge, pedagogical knowledge has evolved from ordinary everyday knowledge of the environment by people to heuristic – intuitive – religious – empirical – experimental – scientific – informational.

Educational paradigms changed: community education – family educationnarrow professional training-scholasticism, dogmatism-humanism-encyclopedismdemocratization, the priority of the individual in education and trainingtechnologization-Informatization (author's classification). With the evolution of educational paradigms, cognitive strategies and ways of translating pedagogical knowledge changed. According to their presentation and implementation, such methods are divided into synchronous (operational address) and diachronic (transmission of information in time) [4; 244].

Let us agree with T. G. Leshkevich in the predominance of language methods for translating pedagogical knowledge, since throughout human history, language has been an iconic reality that formed the basis of sociality and socialization. Sociality is not assimilated by genes. To manipulate things and build relationships with their own kind, people are forced to use extra-biological means of reproducing their social nature in generations. Language as a means of storing and transmitting information and controlling human behavior accumulates the function of a "social" gene, as ancient as consciousness.

The nature of language is symbolic. The sign performs extra-biological social coding, which translates the public intentions of people who are not able to be transmitted by biocode. All social, behavioral, and pedagogical modulations are reflected in the language. For this reason, all methods of translating pedagogical knowledge are linguistic and have a sign (code) nature. Most of them are based on verbal language: oral and written speech. Nonverbal language codes are embodied in behavior, art (painting, sculpture, dance, musical notation, etc.), Morse code, programming languages, information and telecommunications resources, etc.

Let's return to the synchronous and diachronic ways of transmitting pedagogical knowledge highlighted above. Synchronous method as operational targeted communication, exchange of information, ideas, thoughts is widely used by subjects

of the educational process (teachers, managers of educational organizations, students, their legal representatives, etc.). to implement the synchronous method, a common learning and educational space is necessary. It can be an educational organization, educational system, etc. The synchronous method consists of communicative acts as a verbalized language product aimed at informing about events, ideas, and interests of communicants.

Communicative (from Latin: communicatio, communico – to make common, connect, generalize, communicate) the side of translation of pedagogical knowledge is targeted pedagogical communication and includes motivation, statement, exchange of opinions, etc. Such communication is revealed in the forms identified by V. P. Smorchkova and V. A. Ukhanov (verbal and non-verbal), types (interpersonal, intergroup), and types (formal and informal). At the same time, all these forms of targeted pedagogical communication are considered as psychotechnical systems that ensure the interaction of communicants [8; 26].

The specificity of targeted pedagogical communication consists in the intellectual, emotional and moral development of communicants, maximum information content and respect for the partner, the desire to rise to the conventional and higher levels, up to the spiritual. Releases of communicative energy of different intensity and modality, active sense generation, improvisation, and emotional and spontaneous response give the translation of pedagogical knowledge a lively character, accelerate the meaning production and comprehension of meaning by subjects of the educational process.

These non-verbal components are responsible in the educational process for the involuntary mental States and emotions of participants in communication, the exchange of information between them of an affective-evaluative nature. Nonverbal components of communication perform motivational and evaluative functions, are responsible for the partiality and purposefulness of educational activity, feelings, and regulation of the activities and behavior of communication in conveying knowledge to the student were the words of A. S. Makarenko, who wrote about the crucial role of such "nuances" in his practice as the manner of standing, sitting, raising his voice, smiling, looking. According to A. S. Makarenko, he became a master after he learned twenty nuances in the setting of the face and figure.

Classification of non-speech components depending on their role in the process of educational communication was proposed by A. A. Leontiev. He differentiated: 1) "search" components that precede communication and prepare communicants for it, 2) signals that correct communication, 3) regulators of understanding, 4) modulations (reactions to changes in communication conditions). In educational practice, facial expressions, gaze, tone of speech, gestures, pantomime, and proxemic (space-time) communication factors are widely used. These nonverbal aspects of communication are not exhaustive, because paralinguistic markers of speech behavior are highly dynamic and subject to evolution. The degree of their expression varies: until the midtwentieth century, teachers used tactile factors of nonverbal communication; today they are almost out of use. The changes are not limited to this: with the popularization of distance education and interactive learning tools, individual contact achieved through non-verbal means is largely lost. It is more difficult for a teacher to activate students ' thinking abilities (attention, memory, visual and imaginative thinking, imagination, etc.), their emotional intelligence, as well as to exercise individual emotional control.

In contrast to the synchronous method of transmitting pedagogical knowledge (communication), the diachronic method (translation) consists in transmitting it over time, from generation to generation. Knowledge in the traditional sense is associated with translation, which extends to the intellectual development of the individual, its socialization due to world processes and the type of social system.

The history of pedagogy has an impressive Arsenal of information about the translation of pedagogical knowledge in different cultures and local civilizations. To analyze the evolution of its methods, it is legitimate to resort to the classification of historical and pedagogical knowledge. However, V. A. Kapranova notes the existence of several such classifications in the methodology of the history of pedagogy and the lack of elaboration of this issue [1; 7]. As classification criteria, the author highlights: 1) the breadth of coverage (world history of pedagogy, history of pedagogy of primitive society, the ancient world, the middle ages, Modern, Modern times), 3) socio-economic structure (history of pedagogy of primitive communal, slave-owning, feudal, capitalist, socialist society), 4) subject classification (history of general pedagogy, didactics, school studies), 5) type, level, branch of education (history of general secondary and special education, primary, secondary, higher, medical, engineering, etc.).

References

1. Kapranova V.A. Istorija pedagogiki. - M.: Novoe znanie, 2003.

2. Korolev F.F. Logicheskoe i istoricheskoe v pedagogicheskih issledovanijah // Sovetskaja pedagogika. - 1969. - № 3.

3. Lektorskij V.A. Teorija poznanija. - M.: Mysl', 1995.

4. Leshkevich T.G. Filosofija nauki: ucheb. Posobie dlja aspirantov i soiskatelej uchenoj stepeni. - M.: INFRA-M, 2008.

5. Piskunov A.I. Istorija marksistskoj pedagogiki: nekotorye puti i perspektivy // Sovetskaja pedagogika. - 1977. - № 11. - S.52.

6. Hrustalev Ju.M. Istorija i filosofija nauki: ucheb. posobie. - Rostov-na-Donu: Feniks, 2009.

7. Sherkovin, Ju.A. Psihologicheskie problemy massovyh informacionnyh processov. - M., 1973.

8. Judin Je.G. Sistemnyj podhod i princip dejatel'nosti. - M., 1978.

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二十一世纪社会文化挑战背景下的工程教育 ENGINEERING EDUCATION IN THE CONTEXT OF SOCIOCULTURAL CHALLENGES OF THE XXI CENTURY

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该研究的相关性与以下事实有关:在二十一世纪的前三分之一的俄罗斯 社会中,出现了新的社会文化挑战,提出了自己对工程教育的要求。 向数 字经济的过渡和病毒性大流行应被视为新的社会经济挑战。 新的社会技术 挑战是由工业革命"工业4.0"和人工智能的发展引起的。 随着社会各个 领域对计算机科学,信息和通信技术以及互联网的深入介绍,新的文化挑 战已经出现。 这项工作的目的是确定二十一世纪工程师在形成专业技能方 面所面临的挑战。

关键词:数字经济,病毒性大流行,第四次工业革命,人工智能,技术大学毕业生的元主题能力。

Abstract. The Relevance of the research is related to the fact that in the Russian society in the first third of the XXI century there were new socio-cultural challenges that put forward their own requirements for engineering education. The transition to the digital economy and the viral pandemic should be mentioned as new socio-economic challenges. New sociotechnical challenges are caused by the industrial revolution "Industry 4.0" and the development of artificial intelligence. New cultural challenges have emerged with the deep introduction of computer science, information and communication technologies and the Internet in all spheres of society. The purpose of this work is to identify the challenges facing higher school teachers in the formation of professional competencies of engineers of the XXI century.

Keywords: digital economy, viral pandemic, fourth industrial revolution, artificial intelligence, meta-subject competencies of graduates of technical universities.

Introduction. The Relevance of the research is related to the fact that in the Russian society in the first third of the XXI century there were new socio-cultural challenges that put forward their own requirements for engineering education. Sociocultural challenges in society are social and cultural changes that create

certain and stable tensions in the life of each person and in the society itself.

1. Sociocultural challenges of the beginning of the XXI century

S.D. Polyakov, Professor of the Department of psychology at Ulyanovsk state pedagogical University, identifies the "wave of "other" (Western) culture, the actualization of samples of mass Western art and behavior style" as a cultural challenge of the XXI century [6, p. 4], which has increased since the second half of the XX century. As social challenges of the XXI century, S.D. Polyakov defines two challenges: socio-economic and socio-technical. The first is associated with the transition of Russia to market economy in the late XX century, and the second due to the emergence of mobile phone "as a means of intensifying communication, the phenomenon of the "collapse" of space and the Internet phenomenon of usedatabase information and the problem of its quality and reliability" [6, p. 4].

2. New socio-cultural challenges of the first third of the XXI century

In our opinion, in the first third of the XXI century, *new socio-economic challenges* have emerged related to the transition to the digital economy (from 2017) and the corovirus pandemic (from 2019). The main key factor in the transition of production and other spheres of public life to the digital economy is information and statistics presented in digital form. The fight against the viral pandemic requires the transfer of most students and workers to remote mode.

New sociotechnical challenges are caused by the industrial revolution "Industry 4.0" and the development of artificial intelligence.

The term "*The Fourth Industrial Revolution*" was introduced in 2011 [7, p. 4]. Chinese analyst Zhang Bin noted: "The new industrial revolution will be marked by a breakthrough in advanced technologies in areas such as new materials, new energy, digital technology, artificial intelligence, computer education, bioengineering and 3D technology" [2, p. 42]. The fourth industrial revolution can be described as a multi-level organizational and technical system "Industry 4.0 Program". It involves the introduction of cyber-physical systems in the most diverse aspects of human life and society. This is the production technology, and political systems of society, as well as the vital sphere of activity of each person. The industrial revolution "Industry 4.0" as a multi-level organizational and technical system requires modern engineering personnel with new professional competencies. The program "Industry 4.0" aims to create the prerequisites for the production of artificial intelligence systems.

The term "*artificial intelligence*" is associated by the majority of the world's population as a replacement of the human mind with a machine one so that machines can solve tasks set by humans. The information content of the human brain is constantly increasing. Even now, the amount of information is such that no professional can know the entire volume of knowledge, even within the framework of their specialty. Based on human needs, robotics with elements of artificial intelligence began to develop. Currently, millions of industrial machines,

called robots, work in workshops, on conveyors, warehouses, performing various types of work without human intervention. Robots are able to perform a well-defined task, but they do not work well in conditions of uncertainty. Artificial intelligence is used in many areas of public life, such as technology and medicine, banking, and education. But no robot yet has the human ability to perform a wide variety of tasks that were not provided in advance. However, the replacement of human labor by robots is associated with the emergence of a large number of people who are self-employed or unemployed.

New cultural challenges have emerged due to the deep introduction of computer science, information and communication technologies and the Internet in all spheres of society. They required the development of information culture, not only as a component of the professional culture of an engineer. The task of educating an engineer to successfully work with new information appearing on the Internet has arisen.

3. New status of information culture

New socio-economic and sociotechnical challenges have changed the status of information culture. From an element of professional culture, it gradually becomes an integral part of the General culture of a person. From being an element of the engineer's professional culture, it gradually becomes an integral part of the overall human culture. Therefore, we can distinguish the technological and ideological components of information culture.

The technological component of an engineer's information culture includes a person's information literacy, their ability to work with information (receive, process and transmit it), and use information technologies in their activities and communication. The transition of a significant part of the country's population to remote (remote) mode of study and work stimulated the development of remote platforms for students and engineers, such as Zoom, Webex, Moodle, Mirapolis HCM and others for classes, communication, work, as well as improving their cultural level.

The worldview component of the engineer's information culture provides for his relationship with the world around him, and includes the ideals, values, and beliefs of a person living in an information society. It is necessary to use the opportunities of educational institutions to form the value foundations of the future engineer's life in the information society and to form his social competence.

"Going back to the philosophy of the XVII-XVIII centuries, the interpretation of progress, in which the improvement of technology as such was automatically and almost unconditionally evaluated with a plus sign, has now given way to a clear understanding of what destructive forces lurk in its development» [2, c. 260]. This means that an engineer must be aware of his responsibility for the results of technological progress, and in his activities, consider negative consequences for the environment and human life in this world.

4. New professional competencies of future engineers

Industrial revolution "Industry 4.0" as a multi-level organizational and technical system requires modern engineering personnel with new professional competencies. Our analysis convincingly shows that the competencies of future engineers are largely interdisciplinary (see Table).

Table

Factor Name	Content	Competence
Product Lifecycle Management (PLM)	Information about the actual process- es and material and technical support of production is translated into math- ematical models	Possession of fundamental knowl- edge in the field of mathematics and physics; the ability to highlight the main, significantly affecting the pro- duction process
Big Data	Analysis, structuring and manage- ment of information-intensive data on production systems	Knowledge of inter-machine com- munication technologies and data centralization; knowledge of meth- ods of logical thinking and analysis of statistical data; ability to process large amounts of information data by statistical methods
Smart Factory	The definition of goals and objectives at each stage of production and the widespread introduction of artificial intelligence in the automation of knowledge processing, which allows you to close all the control systems of the production, financial and social component into a single circuit	Knowledge of production manage- ment and production organization; the ability to combine in a single pro- cess the individual links of the pro- duction process
Cyber-physical systems	Organizational and technological management of information flows, digital transformation of production, combining computing resources and the corresponding physical processes into a single system	Knowledge of the basic principles of human-machine graphical interfaces, remote control and robotics; the ability to implement business processes in virtual space, carry out end-to-end engineering
Internet of Things	Combining computer networks and connected physical objects with built- in sensors and software	Knowledge of programming lan- guages; ability to program and use standard, already developed pro- grams; possession of meta-subject competencies at the junction of tech- nical and digital tasks
Interoperability	Creating a single cyberspace based on common universal protocols and principles of remote control; ensuring interoperability of production systems and their information security	Knowledge of common standards for products of companies developing automation systems and software; the ability to separate the means of information processing from cyber security attacks; ownership of information flow protection

Professional competence of engineers of the XXI century, due to the main factors of the revolution "Industry 4.0"

Therefore, the structure of the educational process in a University should be reformed on the basis of intersubject integration, meta-subject competencies something in which Russian universities lag behind leading foreign universities. In foreign studies, the term "meta-competencies", or "soft skills" has been introduced [3]. Their formation in foreign universities is based on the modernization of curricula. At the same time, great importance is attached to taking into account the requests of employers and customers of educational services in order to prevent a gap between the current requirements of the labor market and the actual practice of training specialists at a university (the so-called "gap of expectations" - expectation qap).Researchers pay attention to the problem of convergence, i.e. unification, interpenetration of sciences and technologies - nano-, bio-, informational and cognitive. "Based on the study of consciousness, the behavior of living beings, and man, in the first place" [5, p.11]. M.V. Kovalchuk from the Russian research center Kurchatov Institute believes: "The very logic of the development of science has led us from narrow specialization to interdisciplinarity, then supradisciplinarity, and now, in fact, to the need to unify sciences. But not to a simple geometric composition of the results, but to their synergistic effect, interpenetration" [5, p.19].

Modern education is characterized by such phenomena as linear development, typification of students, excessive standardization and narrow specialization. The challenges of the future can only be met by a convergent education model. An example of a convergent education model is the experience of training interdisciplinary specialists at the Moscow Institute of physics and technology (National Research University) and the Kurchatov Institute research center, where the faculty of nano-, bio-, information, cognitive, social sciences and technology was first created. The entire training cycle of specialists is based on the principles of continuous convergent education, including the acquisition by students of meta-subject knowledge.

5. Examples of interdisciplinary courses

Leading Russian technical Universities promptly respond to the society's request, creating new interdisciplinary disciplines and electives. In the process of our many years of teaching at the National Research University "Moscow Power Engineering Institute" (MPEI), we observe how the educational process is rapidly changing. The teaching community understands the need for quality changes in curricula, and these changes are ongoing. Interdisciplinary courses have been created for future bachelors in technical areas that correspond to the formation of those professional competencies, the need for which is dictated by the new industrial revolution "industry 4.0". Here are just a few examples.

At the Institute of electrical engineering of MPEI, the following courses were introduced into the educational process: engineering management, waste

management, modern concepts and management theory, processes and apparatuses for environmental protection systems, environmental chemistry, industrial ecology. The master's program "Smart technologies in the electric power industry" is being developed.

At the Institute of radio engineering and electronics named after V.A. Kotelnikov at the faculty of radio engineering of MPEI students are offered courses: economics and organization of production, business communication, interaction of electromagnetic fields with bioobjects, biophysical foundations of living systems, mathematical modeling of biological processes and systems, methods of mathematical processing of biomedical data, a special course on the study of the Internet of things is being developed.

Among the competencies of MPEI graduates, the following are declared: the ability to use modern software for the preparation of design and engineering documentation, knowledge of modern principles for searching, storing, processing, analyzing and presenting information in the required form, the ability to develop mathematical and physical models, the ability to perform mathematical and computer modeling, knowledge of the principles of experimental research planning. New interdisciplinary specialties, such as: biotechnical systems and technologies, hydropower and alternative and renewable energy sources, economics and management at heat and power engineering enterprises, and technogenic safety in electric power and electrical engineering, management in electrical engineering are very popular among applicants.

The new technological revolution opens up opportunities for the full participation of the social sciences in the convergence of knowledge and technology, including through the development of the "technological component" of social and humanitarian knowledge. We consider it timely to create a Humanitarian and applied Institute on the basis of the MPEI. with a rich tradition of training highly qualified technical specialists. The institute enjoys success among applicants, not least due to the fact that many disciplines are taught by experienced teachers of the MEI. Interdisciplinary courses at the intersection of humanitarian and technical disciplines are actively being introduced into the educational process of MPEI itself.

Interdisciplinarity must be introduced in the process of teaching and individual fundamental disciplines, for example, a course in higher mathematics. Unfortunately, we are witnessing a decrease in students 'interest in this discipline, due, in particular, to the traditional manner of presentation and material overload, the lack of understanding of students' connection with practice and technical tasks.

Building an interdisciplinary course will require serious work on adjusting curricula, interacting with special departments to include sections that are important for a particular specialization of students. For example, when studying the module "Theory of functions of a complex variable and operational calculus", it is desirable to interact with the corresponding engineering training module taught in advanced courses by the department "Theoretical Foundations of Electrical Engineering". It is necessary to consider the most important engineering tasks and applications, saving such a scarce training time. When studying the module "Equations of Mathematical Physics", focus on the heat equation for students of Institute of thermal and nuclear energy of MPEI and on the wave equation and Laplace equation for students of the Institute of radio engineering and electronics named after V.A. Kotelnikov. It is imperative to consider the physical models described by these equations.

It should be noted that the digitalization of industry and education leads to new problems that are directly related to ensuring information security. A single cyberspace, which is formed by interacting systems on the basis of common universal protocols and principles of remote control, usually leads to a transitive closure through the digital interaction circuits of all control systems in the production, financial and social spheres. The global availability of cyberspace objects poses the problem of ensuring the stable operation of modern production in the conditions of random and targeted computer attacks. That is why training areas related to cybersecurity issues are very popular among applicants, which combines approaches, methods and means of protecting cyberphysical systems of digital production.

6. Method of smart training and internet pedagogy

Speaking about the method of training future engineers of the XXI century, we should remember about smart learning or smart learning, built on the principle of smart homes. Smart training involves the use of webinars and video lectures developed by leading teachers of the Russian Federation and foreign countries.

We define Internet pedagogy as a specific type of educational activity on the Internet. From this definition it follows that the most important – educational and training functions are no longer the prerogative of the pedagogical community alone. Internet pedagogy means expanding the range of available forms and methods of activity on the Internet. It should be remembered that thanks to the proliferation of cellular communications, any information can be found on the Internet, but the Internet cannot prepare for participation in society.

Russian physicist and popularizer of science S.P. Kapitsa believed: "However, access to information is only the first step towards building a knowledge society. Indeed, knowledge alone is not enough - the goal is to achieve understanding. This makes new demands on education, when not knowledge, but their understanding becomes the task of educating the mind and consciousness" [4]. Knowledge means knowing how to use the information available. But the simple application of knowledge has led to a pragmatic simplification and reduction of the learning

requirements of youth. Understanding comes to the fore. The difference between knowledge and understanding is that if knowledge was acquired as a result of acquiring licenses or industrial exploration, then successful application contributes to the advanced development of society, if the fundamental science created in society ensures the reproduction and further development of the knowledge gained.

To organize students' independent work, it is recommended to use electronic educational resources and online courses. In online courses, training is structured in such a way that after each theoretical or practical module there follows a control block with a list of tests to check the development of theoretical knowledge, and also offers multi-level tests to test the generated skills. Passing online courses on the eve of planned control measures or exams allows the student to feel more confident in real conditions.

For the implementation of interdisciplinary courses in education, the use of elements of artificial intelligence can be effective. Note that the training of engineers to work in the "Industry 4.0" program requires the training of new teaching staff on an interdisciplinary basis, capable of implementing smart training.

Conclusion. In conclusion, we note that the result of proper training and education of a future engineer at a university is a creatively free personality. She is able to live and work in the information society of the digital age, able to learn throughout her life and not be afraid to master new professions. She focuses on moral values when solving her personal and social problems, realizing her responsibility for the decisions made. Note that the training of engineers to work in the Industry 4.0 program requires the training of new teaching staff on an interdisciplinary basis, capable of implementing smart learning.

References

1. An introduction to the sociology of technology. Systems, design, education models: a tutorial / A.L. Andreev, I.I. Ashmarin, P.A. Butyrin, V.G. Gorokhov. – Moscow: Publishing house MPEI; 2017. – 320 c. ISSN 978-5-7046-1850-8

2. Bin Zhang. Get ready for Industry 4.0 // China: monthly magazine.. 2016. № 11(133). C. 42–43. ISSN 1005-5010.

3. Heckman J.J., Kauts T. Hard evidence on soft skills // Labour Economics. 2012. Vol.19, Iss 4. Pp. 451–464.

4. Kapitsa S.P. Growth paradoxes. The laws of human development. – Moscow: Alpina non-fiction, [Electronic resource]. - Access mode: https://e-libra. net/read/53280/-paradoksy-rosta-zakony-global-nogo-razvitiya-chelovechestva. html# (date of the application 24.07.2020). 5. Kovalchuk M.V. Convergence of Science and Technology - a Breakthrough into the Future // Russian Nanotechnologies / T. 6. №1-2 2011 / www.NANORF. ru [Electronic resource]. URL:http://www/portal.ru/read/iInfrastructure/Russia/ nns/kial/convergence_kovalchuk#1 (date of the application: 2.10.2020)

6. Polyakov S. D. Sociocultural challenges of modern school: experience of phenomenological analysis // Continuing education: the 21st century. Scientific electronic journal. Petrozavodsk state University University: - 2017. - Issue 2 (18) - p. 1-8. DOI: 10.15393.15. art. 2017.384. [Electronic resource] / S. D. Polyakov.– URL: http://lill.petrsu.ru/journal/article (date of the application: 24.11.2020).

7. Schwabs K. The Fourth Industrial Revolution – Moscow: Eksmo, 2016.-208 p.

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现代时代的世界革命 WORLD REVOLUTION OF THE MODERN ERA

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本文将现代定义为从资本主义向共产主义过渡的时代。世界共产主义革 命始于伟大的十月苏共革命,并随着中国,韩国,越南,老挝和古巴的许 多欧洲国家的革命而继续。因此,建立了世界共产主义制度,尽管苏联和 许多欧洲国家进行了反革命,该制度仍然存在。现代时期的特点是,社会 主义国家的经济规模首次超过世界上最强大的资本主义国家,而这一事实 的特征是,正在努力维持其地位的国家正在中国各地进行整合独立于帝国 主义中心。帝国主义在现代世界中的力量仍然非常重要,世界共产主义体 系在世界共产主义革命的过程中正面临着艰难而长期的斗争。

关键词: 共产主义, 社会主义, 反革命, 苏联, 中国, 世界革命

Abstract. The article defines the modern era as the era of transition from capitalism to communism. The world communist revolution began with the Great October Soviet Communist Revolution and continued with revolutions in a number of European countries, in China, Korea, Vietnam, Laos, and Cuba. Thus, the world communist system was created, which survived despite the counter-revolution in the USSR and a number of European countries. The modern period is characterized by the fact that for the first time in world history a socialist country has outstripped the most powerful capitalist country in terms of the size of its economy, and by the fact that countries are consolidating around the PRC that seek to maintain independence from the imperialist center. The forces of imperialism in the modern world are still very significant, and the world communist system is facing a difficult and long struggle in the process of the world communist revolution.

Keywords: communism, socialism, counterrevolution, USSR, China, world revolution.

Capitalism objectively creates the conditions for the transition to communism: large-scale production, its social character and, most importantly, the working class. In the XX century, large-scale production turned into monopoly production,

private monopoly capital began to merge with state capital, forming state-monopoly capitalism, which, being a solution to the contradiction between the social nature of production and the private form of appropriation, brought this contradiction to a new level, inevitably aggravating it. The struggle of the capitalist powers for resources and sales markets, turning them into imperialist countries, plunged these countries into a world war, which not only led to the collapse of the German, Austro-Hungarian and Russian empires, but also revolutionized the working masses.

The weakest link in the capitalist formation turned out to be Russia, in which the contradictions of capitalism were exacerbated by the remnants of feudal relations and the unresolved land issue. The Russian working class, led by the Bolshevik Party, in alliance with the most numerous class in Russia, the petty-bourgeois class - the peasantry, prepared and carried out the Great October Soviet Communist Revolution, which marked the beginning of the era of human transition from capitalism to communism, the era of the modern world revolution.

Humanity has experienced several world revolutions: a slave-owning revolution that lasted for millennia, a feudal revolution that stretched over many centuries, a bourgeois revolution that began in the XVI century and completed in the XX century. And now, only a little over a hundred years, mankind has been living in the era of the world communist revolution.

In the mid-1930s, the first communist society was created in the USSR in the first phase of its development - the socialist one. The victory of the communist society in the largest war in world history, the war against fascism, created the conditions for the emergence of the world communist system. The second country in which a successful communist revolution took place back in the 1920s was Mongolia. But the truly world communist system took shape after the Second World War. Communist revolutions in Poland, Czechoslovakia, Hungary, Romania, Yugoslavia, Albania, East Germany, supported by the USSR, led to the emergence of a communist structure in these countries as the basis of the economy. In unity with the USSR, these countries created the world communist system. Moreover, this was not an artificial "export of communism" propagated by the Trotskyists, it was an objective development of the world communist revolution, based on the influence of the USSR, which had gained strength.

We radically strengthened and expanded the world communist system of the revolution in China, North Korea as a result of the victory of the USSR over fascist Japan and the struggle of the communist movement in China, the revolution in Vietnam, Laos, Cambodia as a result of the communist movement in these countries and its support from the USSR and the PRC. The revolution in Cuba showed that the communist revolution could grow out of a national liberation movement that received the support of the world communist system.

The revisionism of the Khrushchev party leadership in the USSR, expressed in
the rejection of the dictatorship of the proletariat in 1961, strengthened anti-communist tendencies both in the USSR and in other countries of the world communist system. Soviet troops had to suppress counter-revolutionary uprisings in the GDR in the summer of 1953, in Hungary in 1956, in Czechoslovakia in 1968.

Resolving contradictions, the world communist system in the 50 - 80 years was a powerful force in the economic, military and political terms. The creation of the world communist system is the implementation of the law of the modern era - the movement from capitalism to communism. With the emergence of the world communist system, the character of world development as a whole has changed. The world communist system limited imperialism militarily. The United States and its allies failed to defeat the DPRK, supported by the USSR and the PRC, the United States was defeated by communist Vietnam, withdrew its troops from Laos and Cambodia, did not dare to fight Cuba. The communist countries created about a quarter of the world production, influencing the economic relations of the most developed capitalist countries with the countries of Asia, Africa, Latin America, Europe, and the world economy as a whole. World communism had a significant impact on social relations within the most developed capitalist countries. The growth of wages, improvement of working conditions, reduction of working hours in these countries occurred not only as a result of the struggle of the working class of these countries, but also under the influence of the example of the communist countries, including because of the fear of the bourgeoisie of the prospect of revolution.

The contradiction between the world communist system and world capitalism aggravates the crisis of imperialism. Imperialism loses sources of exploitation and sales markets in countries that have entered the world communist system, state-monopoly capitalism loses a significant part of the absolute surplus value as a result of the shortening of the working day under the influence of proletarian revolutions and the communist movement, the rate of surplus value decreases due to the growth of the organic composition of capital due to restrictions on the export of capital. The developed capitalist countries were losing influence in the middle and underdeveloped countries due to the growing influence of the communist countries in them. The development of the communist movement in capitalist countries became a factor in limiting the exploitation of workers and supporting the world communist system. The aggravation of the crisis of imperialism inevitably leads to an intensification of its struggle against communism, to an increase in the aggressiveness of imperialism.

But the growth of the aggressiveness of imperialism is not the reason for the counter-revolution in the USSR, but the refusal of the CPSU from the dictatorship of the proletariat. The Chinese Communist Party rightly criticized the revisionism of Khrushchev and those around him. The rejection of the dictatorship of the pro-

letariat in the USSR was essentially the beginning in the country of a counter-revolutionary transitional period from socialism to capitalism. Communism in the USSR turned out to be strong enough if it took three decades to destroy it, during which there were both Khrushchev's experiments and Kosygin's "self-supporting" reforms. As a result, instead of reducing costs and prices, the priority goal was to increase profits and increase gross indicators, which led to a shortage of products and higher prices, and in the 1980s resulted in acute discontent with the country's leadership. This discontent was used in the late 1980s by anti-communist forces for a counter-revolutionary coup in the USSR, which ended the long period of transition to capitalism.

Following the USSR, capitalism was restored in East Germany, Hungary, Poland, Romania, Czechoslovakia, Bulgaria. The restoration of capitalism led to the destruction of the USSR, Czechoslovakia, a war was unleashed in the destroyed Yugoslavia, which ended with the occupation of Kosovo and the direct aggression of imperialism. The war in Chechnya, Nagorno-Karabakh, Abkhazia, South Ossetia, Donbass led to huge casualties.

Thus, the world communist system, just like developing capitalism in its time, has to go through periods of restoration of a reactionary, lower formation. Over the course of several centuries, capitalism has overcome these periods of reaction and counter-revolutions.

The world communist system not only survived, not only overcomes the consequences of the crisis, but for the first time in the history of mankind, the basis of the system - the People's Republic of China, caught up with and surpassed in terms of production the basis of world capitalism and imperialism - the United States of America. Moreover, the rate of growth of the Chinese economy is such that the doubling of production occurs in 12 years, while the doubling of production in the United States and the European Union can occur in only 30 years. If these growth parameters are maintained, in 25 years the economy of the PRC will quadruple, while the economies of the United States and the European Union, at best, with an almost maximum growth rate of 3%, will increase 1.8 times. That is, China's economy will exceed the combined economy of all the most developed capitalist countries. It should also be borne in mind that the Chinese economy is systematically managed as a single whole, which contributes to crisis-free development, while, despite all the state regulation tools mastered by capitalism, capitalism is subject to spontaneous development. Consequently, the stability of the growth of the PRC's economy is ensured to a greater extent than the growth of the economy of the capitalist countries, which in these 25 years will suffer 2-3 crises.

The modern world communist system includes the Socialist Republic of Vietnam (96 million), the Democratic People's Republic of Korea (25 million), and the Republic of Cuba (11 million). Together with the population of the People's Republic of China (1,400 million people), the population of the countries of the world communist system exceeds 1.5 billion people, that is, about 20% of the total population of the world, and exceeds the total population of all countries of the Organization for Economic Cooperation and Development, which includes the most developed capitalist countries. The advantage of the world communist system in population size, economic scale, planned and stable development, progressiveness of social relations provides the prospect of victory for the world communist system in the struggle against the world capitalist system.

In the modern capitalist world, opposite tendencies are developing: either subordination to the imperialist center - the USA, or preservation of independence. Most capitalist countries are subject to US hegemony. Russia, India, Brazil, Iran, South Africa, due to the significant scale of production, population size, and military power, are making efforts to protect their national interests (which, of course, are based on the interests of the national bourgeoisie in appropriating the surplus product produced in their countries), thereby entering into conflict with USA imperialism. A number of republics that have emerged on the site of the union republics of the USSR are consolidated with the position of Russia in the main aspects: Kazakhstan, Belarus, Uzbekistan, Armenia, Kyrgyzstan, Tajikistan, Azerbaijan. Turkey, Pakistan, Venezuela are defending their national interests more and more clearly. The capitalist countries pursuing independent policies have no other way out in the struggle against US imperialism, but to consolidate their economies and policies with the most powerful socialist power, the People's Republic of China, which is actually happening. The BRICS organization was created (Brazil, Russia, India, China, South Africa), the Shanghai Cooperation Organization (China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Pakistan, India) was formed and operates, uniting in matters of security, economic development, energy partnership, scientific and cultural interaction of the country with a population of 3 billion people, occupying about 60% of the territory of Eurasia.

On the one hand, the consolidation of the BRICS countries and the Shanghai Cooperation Organization around China strengthens the positions of these countries and the world communist system; on the other hand, it increases the split within the world capitalist system.

The rapprochement of Russia with the People's Republic of China exacerbates the internal contradiction in Russia - the contradiction between the tendency of pursuing the country's national interests and the "liberal" economic policy pursued by the Russian government, a policy oriented towards the interests of the United States and largely dictated by the United States. As Russia and China come closer together, the prospects for resolving this contradiction in favor of pursuing Russia's national interests are growing.

With the strengthening of the world communist system and weakening due to

internal and external causes of the world capitalist system, the conditions for the implementation of peaceful communist revolutions are improving. At the same time, imperialism, in the process of its dying, will inevitably increase its aggressiveness in order to resolve in its favor internal and external contradictions. The forces of imperialism in the modern world are still very significant, and the world communist system is facing a difficult and long struggle in the process of the world communist revolution. And the main arena of this struggle is now taking place within the world communist system itself, the struggle of the state of the dictatorship of the proletariat for the development of the immediate social essence of socialism, the struggle against the moments of commodity, moments of spontaneity, petty bourgeois and bureaucracy within the world communist system. The success of this struggle will ensure the victory of the modern world revolution.

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人类和全球虚拟现实 HUMAN AND GLOBAL VIRTUAL REALITY

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本文探讨了一个创新的全球社会人的沟通本质,分析了人对信息现实的 社会适应形式,并表明人的生活价值观和理想是这种适应的主要来源和产 物。这篇文章特别强调了自由和新的每日和全球Internet网络中"信息主 题"的策略选择。给出了对虚拟现实的社会哲学理解。作者证明,随着互 联网融入到日常生活中,日常的个人和社会交流形式和方式发生了变化, 对传统文化进行了调整,创新和新的物质和精神存在现实应运而生,新的 生活原则和新现实应运而生。构成人们日常活动的组成部分。

关键字。全球化,人类,交流互动,社会环境,"信息主体",信息社 会,新日报,互联网虚拟社会现实

Abstract. The article explores the communicative essence of an innovative, Global society person, analyzes the forms of a person's social adaptation to the informational reality, and shows that a person's life values and ideals are the major sources and products of this adaptation. A special accent in the article is made on freedom and the strategy choice for an "information subject" in the new daily and the global Internet network. Socio- philosophical understanding of virtual reality is given. The author proves that with the Internet integrating into everyday life, the forms and ways of everyday personal and social communication change, adjustments are made to the traditions and cultures, innovation and new material and spiritual existence realities emerge, new life principles and new reality are formed that accompany people's daily activities.

Keywords. Globalization, human, communicational Interaction, Social Context, "information subject", information- oriented society, new daily, Internet virtual social reality

Introduction

The formation of global information society and the introduction of the *Internet* in everyday human life caused profound changes in human existence and, most importantly, in a man, a *subject in* radically new conditions of life and communication [1]. These changes are so significant that we can speak about the

birth of a qualitatively different subject of activities. In fact, there is the problem of self-consciousness of a man in information reality.

The spread of the *Internet* and the introduction of high technologies into human life radically change the forms and methods of everyday interpersonal communication and social adaptation. The analysis of information adjustments of everyday life allows to recognize and assess new cultural traditions and innovation contents, to rethink a new material and spiritual realities of life and, thereby, to identify features of human evolution and a society created by a man.

People in global information society receive such qualitative parameters and new features which he did not have in an industrial society.

Discourse

The formation of a man in global information society is a rethinking of existence basics such as goals, objectives, methods, the idea of objective world transformation, an integration of familiar, networked means of communication with the global information reality. The interaction with a new information reality allows one to study a man as a subject of qualitatively different interactive activities, a subject of actions in the formation and development of the global communicative social reality.

Human activities in the global information society has a classic structure with successive character. It consists of a chain of *needs* – *motives* – *conditions to achieve the goal* on the one hand, and, on the other hand, is associated with them: *activities* – *actions* – *operations*. This classical structure of human activity in the global information society acquires qualitatively new values.

The first chain of the structure is contents of human activities, and the second one is its implementation. In total, these two layers are a psychological essence of activities aimed to meet the needs of people in the communication.

One of the most important characteristics of *Homo Sapiens* is the need for communication. In the global world a satisfaction of requirements happens at this level, which has never been in the history of civilization [2, pp. 207-225, 414-430].

In the typology of communication there are the following types of dialog: phatic, informational, debatable and confessionary. A phatic type is the exchange of speech utterances to maintain dialog and conversation. In some cultures, phatic communion is a ritual nature, because it creates the feeling of belonging to an interlocutor.

An informational dialog is the exchange of information of various kinds. Informative communication often does not require responses of an addressee. Therefore, it has a recommendatory character. For example, the exchange of information on blogs and forums on the *Internet*.

A debatable type of communication reflects the clash of points of view, the difference in the interpretation of phenomena, facts, events, etc. Participants in the debate, influencing each other, convince each other and strive to achieve the desired result. A debatable dialog accompanies human interaction in all spheres of life.

And, finally, a confessionary type is a trust communication, when a person seeks to express and share with others their deep feelings and emotions. This is an intimate communication, based on mutual acceptance of individuals. The global network is the result of the revolution in information technology. It has created the material basis of the globalization, [3] i.e. the appearance of a new reality.

The information technology revolution is fundamentally different from its historical predecessors in the fact that the previous technological revolutions had remained in a limited area for a long time, and new information technology almost instantly covers the entire planet.

The introduction of the *Internet into everyday life* and the spread of changing forms and methods of interpersonal and social communication [4, pp. 19-20] and adaptation has changed traditions and culture [5]. Innovations and new material, spiritual layers of existence have appeared. A new life is formed accompanying the daily practical activities of people.

Globalization and the complication of communication on the *Internet* destroy social barriers as well as traditional forms of social relations giving way to arbitrary forms of everyday interpersonal communication.

The problem of communication in everyday life acquires new features in the context of the theory of the *Internet*, communication forms, virtual communities and social networks. The Technosphere [6, pp. 500-501], global integration processes, the infosphere are the correlates that reformat an everyday experience space of communication.

The contemporary stage of civilization development [7, pp. 58-59] differs from all previous historical phases in several significant features: 1. the spread of *the Internet* and the acceleration of scientific and technical progress; 2. the emergence of new social problems and the deterioration of relationships between people, society and nature.

Arguing about social problems related to the development of global innovative communication means, first of all, we pay attention to how everyday life is changing. Problems in communication, in purchase of goods, in work and education, services are related to the appearance of digital space.

In the social philosophy a tradition of social transformations associated with the emergence of social networks has not been established yet. The issue of how changing technology requires new approaches and contributes to work form changes has been raised only. However, today the study about changes in communication and social relationships based on global information technologies is becoming more relevant. In other words, a new technical and social environment and an introduction of new technologies create new social realities and new rights.

Today philosophers, sociologists, researchers of modern society talk about mass media as a fait accompli. it should be interpreted as a response to the fact that a breakthrough has happened in digital media. This phenomenon seems to belong to the first phase of revolutionary change.

The second stage is the level of a changed communication. It is not only on an access to electronic information, a knowledge and an electronic space. Here it is, first and foremost, an establishment of an information network and an innovative type of cultural communication. This type of innovative communication can be called cultural technics based on the electronic media. This is the completely different paradigm of interactive communication.

The prerequisites for a new paradigm can be the network emergence, virtual communities, the improving of interactive communication forms as well as the development of technology and digital technologies, which will lead to the collapse of existing mass communication systems.

The creation and implementation of new forms of everyday communication and new social environment are changing not only the social, economic, ethical aspects [8, p. 109-11] of life and human activities, but also cause deep changes in personal attitudes, needs and interests. The emerging personal and typological features also determine a complete restructuring of psychological structure of everyday human activities and relations to others and itself.

The Internet and everyday communication have their specifics. The specificities of *the Internet* space and communication are: an incorporeity of participants in communication, an anonymity and a possibility to disguise oneself, a place of localization, a non-synchronism of communication time, a limitation of expression forms by text contents, an absence of subordination and a possibility of status interaction.

The fact that the distant communication brings some of the social and psychological human problems to naught, the marked peculiarities of network communication play a great role in the study of social relations.

A person lives in the virtual world for the sake of new values of a consumer society. The life reference points of the modern individual are structured by the text of advertisement, determining the leading motivation. Reality is replaced by "hyper-reality", which suppresses reality, escaping from a person and becoming virtual, relative, conditional. Virtual reality allows satisfying human need in designing of the illusory world.

The global network is able to replace a person's everyday world with a virtual world. This new world forms a new type of a person: "a clicking person", who

models one's own world using a mouse. Today the latest information technology does not act exclusively as a means of delivering, processing and storing information any more, but performs a culture-forming function; a special cultural environment with its special content and norms of social communication and interaction is created by means of them.

Equipment and information increase the properties of individuals to adapt to increasing volumes of knowledge, but the strength of the habitual nature of a human being decreases owing to arrangement, "rationalization" of working conditions, creation of comfortable domestic living conditions. N. Berdyaev speaks quite vividly about this: "The machine and equipment inflict terrible defeats on person's mental life, and, above all, on emotional life, human feelings. The mental and emotional element is fading away in modern civilization ... The heart hardly endures the touch of cold metal; it cannot live in a metal environment" [10, pp. 3-38].

Mass use of computers provides access to information, relieves people from routine work, speeds up making optimal decisions, and automates the information processing.

As a result, the driving force of society development is production of a not material, but information product. As for the material product, it becomes more "information-intensive" and its cost largely depends on the number of innovations admitted in its structure. People's activity is mainly focused on information processing, and production of energy and material products is assigned to machines.

Informatization of society reinforces authoritarian tendencies. An ability, on the one hand, to obtain accurate information about each citizen, and, on the other hand, to manipulate the masses of people is extremely increasing when using computer networks.

The intrusion of electronic communication systems upon all spheres of life necessitates new forms of organization of human relationships. High technology requires, respectively, high preparedness of an individual, one's spiritual maturity and responsibility. The balance upset in favor of technology (outstripping development of the technology in relation to the moral and ideological resources of society) is one of the important reasons for such phenomena as dehumanization of various aspects of life. In addition, computers create not only deserted productions, but also "deserted" communication, when a PC completely replaces an interlocutor.

Computers attach people to themselves since childhood, replacing books, theaters, friends, reduce the degree of human communication; they create a different reality that can be taken more seriously than the surrounding world. The new

technological environment has a powerful (and so far completely unpredictable) impact on the human psyche. Today, this prospect is found, in particular, in the phenomenon of maniacs of computer games and avoiding reality in the form of immersion into "virtual reality", where there are many pseudo-types of human activity.

Realia of the information society impose new requirements on a person, primarily the ability and readiness to change activities, for mobility, retraining; mastery of a new profession. At the previous stage of development, it was claimed to a lesser extent.

It is possible to assume a possibility of emergence of some more dangerous negative consequences of intellectualization of robotization of life, sufficiently influencing people and socium as a whole.

The point is that in the past, every decision related to environmental change was always taken by a human being - a creature endowed with a sense of responsibility. But the dynamics of the infosphere is changing this position.

Intellectual systems do not just store information, but use it to make decisions and search for answers to raised questions. They can combine forces with other systems, receive information from them that was not discussed in the initial problem statement. Yet today, the solution found by the machine is frequently not accepted by a person, since one does not know the reasons for its adoption and the mechanism of its obtaining.

The deeper the control over various most complex processes by means of computers penetrates into life, the more dangerous it is that one day a person will be unable to understand either the meaning of the decisions made by machines or the logical path they travelled to come to a certain conclusion. It is not always possible to obtain an explanation from the computer of its actions in terms understandable to a human being. This is the most important task that artificial intelligence experts face. If they do not cope with it, then it is frightful to think about the disasters, accidents and confusion that humanity will have to face. This actualizes the need for effective control over intellectual assistants of a human being.

In the future, perhaps, there will be machines having such level of reliability that the human need to intervene in the process will disappear. However, in this case there may be concerns regarding a possible degradation of person's abilities to react to a change in external conditions and assumption of control in the event of emergency.

One more possible complexity of intellectualization consists in increasing the requirements for the educational level of society members.

An activity requiring unskilled labor will be reduced. However does everyone have the ability to work with high technology? It is likely that they will turn out to be unemployed unwittingly, and society will have to take care of them,

give them their social protection. Besides, some experts fear that the widespread introduction of information and expert systems may lead to emergence of peculiar intellectual idlers, completely trusting the machines and striving for not making any intellectual efforts. These concerns may not seem very reasonable, but they have to be understood.

Future development must proceed from the main thing: to preserve the preciousness that evolution gave, the life of humankind. This does not mean, however, freezing of scientific research but rather a new beginning. Since the ends and beginnings of the development stages of any science permanently transform into each other.

The desire of humankind to computerize all life is uncontrollable. Would not a person be in bondage to a computer? Would he become a slave to the machine? What are the social, psychological, physical impacts of computerization, which is proceeding very rapidly? And what to do, how to protect the human psyche from the avalanche of information that falls on the consciousness (and subconsciousness) of a person? After all, advertising today has already become a form of violence against the human psyche?

Some researchers give many convincing arguments proving the negative effects of the computerization process on a person, society and thinking. For example, V. Volpert [14] confirms that computers negatively influence the psyche and creative abilities of a person, lead to serious psycho-physical disorders, reduce vital activity and destroy the creative nature of a human being.

There is another group of researchers who recognize that the presented dangers and threats happen to be; however, in their opinion, they can be overcome. Thus, K. Hefner suggests ways out of the situation by creating a "humane-computerized society, formation of humane, perfectly thought-out relations between computers and people" [13, p. 369].

Thus, the last quarter of the 20th century was marked by the fact that humanity has entered a new stage of information development. The formation of a society of information services and new technologies, the onset of the information economy, mass personal computerization are phenomena that did not take place in the history of humankind before.

Conclusion

It can be concluded that the modern global information- communicative sphere *Internet is* a special form of human interaction, which may use traditional means of communication. At the same time, it can build alternative systems and forms of information transfer, introduce new elements of the conceptual apparatus, create new forms of a community life and a completely different daily life [9].

Forms of communications, which are peculiar to the Internet, can be called

intertextual.

The Internet is not only an information source, but a unique tool of professional and scientific communication as well as of community creating, the essence of which is enough to adequately reflect the synthetic expression "the media type of community".

Interpersonal relationships developing in the *Internet* environment can be understood in two ways: as relationships forming, on the one hand, between individuals, and on the other, between an individual and text, as well as between texts.

People of the 21th century are no longer able to support life without using technical means. As Karl Jaspers said, "A fate of a man depends on the manner, in which he subordinates consequences of technological progress, ... as a person conquered by technology will dominate over it" [12, p. 5].

Informatization of society strengthens authoritarian tendencies. An ability to receive information about every citizen and to manipulate the masses of people, increases with the use of computer networks.

According to H. Ortega y Gasset, technology serves as a means of adapting the environment to a person and a person is unable to reject a connection with it. However, one is able to transform the technique while retaining one's identity [11, pp. 164-227]. Jaspers is confident that "The fate of a person depends on the way in which one will subordinate the consequences of technological progress ... as a person who obeys the technique will dominate it" [12, p. 221]. Future will tell.

References

1. A.D. Ioseliani, "Anthropology of the technogenic world", Perm, 2018.

2. A.N. Chumakov, "Global world: a clash of interests", Moscow: Prospectus, 2018.

3. N.P. Malikova, "The social dimension of globalization", Moscow: RSUH, 2012.

4. A.V. Kulikova, "Features of Internet communications", Bulletin of Nizhny Novgorod Univ. n.a. N.I. Lobachevsky. Ser. Social sciencies, No.4 (28), pp. 19-24, 2012.

5. I.K. Liseev, "Globalization and the problem of preserving cultural diversity", Yu.V. Heng, ed., Moscow: IFRAN, 2010.

6. A.D. Ioseliani, "Technosphere", Global Studies. Encyclopedia. Dialog. Raduga Publishers. Moscow, 2003.

7. A. Chumakov, "Cultural and civilized fractures of the global world", International Journal of Foresight and Innovation Policy, vol. 12, No 1/2/3, pp. 58-68, 2017.

8. A. Chumakov, "Nikolayevich Global World - a problem of governance", Campus-Wide Information Systems, vol. 31, No. 2/3, pp. 108-120, 2014.

9. E. Giddens, "Sneaking World. How globalization is changing our lives". Moscow: The whole world, 2004.

10. N. Berdyaev, "Man and car. The problem of sociology and metaphysics of technology", Path. No. 38, pp. 3-38, 1933.

11. Ortega y Gasset José Selected Works. Reflections on technology. Moscow: The whole world, 1997.

12. K. Jaspers, "The meaning and purpose of history", Republic, 1994.

13. K. Haefner, "Mensh und Computer im Jahre 2000". Basel-Boston-Stuttgart, 1984.

14. W. Volpert, "Macht die Arbeitam Computer Stumpf", Bild der Wissenschaft, No. 11, 1984.

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后古典哲学范式的成因 CAUSES OF THE PARADIGM OF THE POSTCLASSICAL PHILOSOPHY

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在本文中,作者研究了诸如后古典哲学之类的哲学传统的起源原因。 作者分析了后经典的世界观基础,注重这一哲学方向的独创性和独创性。 关键字。哲学,理性,理论,心理学,非理性,方法论

Annotation. In this article an author investigates reasons of origin of such philosophical tradition as post-classic philosophy. An author analyses world view grounds of post-classic, pays attention to originality and originality of this philosophical direction.

Keywords. Philosophy, rationality, theory, psychology, irrationality, methodology

During the New Age (early Modern period in European history science), a special type of culture arises and develops., a culture based on an almost unlimited faith in the power of the human mind, its all-encompassing power and dignity.

However by the middle of the XIX century, classical philosophy, which constituted the theoretical basis of aforementioned culture, had practically exhausted its meanings and began to crack.

When it comes to complex processes that affect many areas of life, as a rule, the reasons of these processes' occurrences are fundamentally multifactorial in nature. It is impossible to single out the one and only reason and explain the fact of the change by it. Everything above fully applies to the transformation of philosophy from classical to postclassical.

Most often, researchers focus on external socio-political conditions present in Europe of the XIX century. First of all, it is a rearranging of the map of the European continent because of the Napoleonic Wars. The little conqueror detronized the monarchs one after another, establishing a new political system and civil order. For France XIX century is a period of endless revolutions. Secondly, it is German development of the strongest industry in Europe, caused by compensatory reasons, since Germany, due to the late unification, did not manage to take part in the division of the colonies, for which the Germans took strong offence at the French and British and so they sought to surpass them in terms of domestic economy. Thirdly, it is awakening of the national consciousness of Italy called «Risorgimento». Fourthly, it is the mobilization of the British military forces against Russia in the Crimean War. Fiftly, it is a general trend of the collapse of the empires, which led to independence of the number of the East European countries (Greece, the Balkans, etc.).Lastly, It is increase of social and political influence of the working class due to the growth of industry and its transformation into the main pillar of the economy.

On the other hand, the process of political fragmentation of European empires was perceived as a collapse of traditional foundations, on the other hand, it brought to life the self-awareness of the national identity of many countries. Uniformity was gradually replaced by diversity. To comprehend, justify and describe the new order, a new language a new conceptual apparatus were required. This requirement was the impetus for the emergence of post-classical philosophy.

Thus, the closest reason for the emergence of the paradigm of post-classical philosophy can be considered the social and political practice of that time. However, such an explanation in the spirit of a materialistic interpretation of history is not quite enough. One may ask: why did all these sociopolitical perturbations occur? What caused them?

After all, one can look at the matter differently, and, conversely, regard socio-political changes as a result of the changes that took place in the thinking of the elites. However, the question also arises: what was the reason for these changes?

As noted by the prominent historian philosopher Walter Schubart, we can only guess about the true causes of the historical process, since they are metaphysical in nature and not accessible to our minds. One can follow Marx to see the source of historical development in the struggle of the classes, or one can, as Nietzsche believed, that history is changing as a result of the continuous struggle of individual wills, asserting their will-to-power. But this is a reflection of already postclassical philosophers. More classical philosophers, such as, for example, Hegel, believe that history is the unfolding of the potentials of the World Spirit, which always occurs in a triadic way as thesis, antithesis and synthesis. If we take into account the Hegelian attitude, it can be argued that post-classical philosophy arose as the antithesis of classical philosophy, which was the thesis, and that synthesis could be expected in the XXI century. In part, this assumption is confirmed by the modern scientific process, in the framework of which the so-called «flexible forms of rationality» are developed that combine intellectual strategies of both classical and post-classical philosophies.

In addition to the political and metahistorical reasons for the emergence of

the paradigm of post-classical philosophy, purely cultural reasons can be distinguished as well. The fact is that the active colonization of the East by Europe led to the assimilation of cultural experience on both sides. In the XIX century, Europe for the first time truly discovered the East for itself as an original phenomenon, not inferior to Europe in the sense of the richness of cultural traditions, the depth and originality of their meanings. If earlier Europe boasted of its political, economic and cultural power, then in the 19th century it abandoned the monopoly on cultural superiority. Moreover, the exotic culture of the East seems to many educated Europeans far more ancient than their own. It is to eastern culture that the eyes of the thinkers of that era turn in search of true, genuine wisdom. Schopenhauer openly says that he is formulating his teachings on the basis of the ancient Indian Upanishads, Nietzsche claims that Buddhism is the most intellectual religion and that ones with high spirit should direct their aspirations to it. The interaction of eastern and western cultures changes not only the content, but also the form of philosophical thought in Europe.

It should be noted that the emergence of post-classical philosophy is not something exceptional. Same can be observed in the field of exact sciences, and in art, and in religion. A critical contrast between the phenomena of the postclassical paradigm and the traditional phenomena of the classical paradigm of culture is more a symptom rather than a surprise. And first of all, this symptomatology indicates the crisis of the previous foundations. Old meanings have been exhausted, new ones have not yet been established. In a state of transition, instability, inter-time, post-classical philosophy becomes a pointing reference and a bridge connecting the past and the future..

The main sign of this landmark is its anti-scientistic orientation. Postclassical philosophy disavows the previous status of scientific knowledge, expanding the value foundations of culture, including those objects that previously did not fall into the field of traditional philosophical reflection. Since post-classical philosophers are pioneers in this matter, these objects do not have a clear and rigorous conceptual designation; they receive semi-poetic, semi-metaphorical nominations, such as: will, life, impulse, abandonment, etc.

The anti-scientism of post-classical philosophers was expressed, first of all, in their desire to cancel the context of idealistic metaphysics, which considered a person from a purely speculative perspective, and to take the position of a specific anthropology coming from a holistic person, taking into account all areas of his life manifestations. It receives different conceptual designs from different philosophers of postclassical tradition. For example, Kierkegaard writes about the uniqueness of human existence; Marx - on the fundamental historical and social class bias of a person understood as a complex ensemble of social relations; Freud analyzes the essence of man in terms of lower vitalism, as a creature lusting and desiring.

Whatever aspect the concretization of anthropological discourse takes, whether it is an appeal to a pure existence, to social inclusion or to sexual instincts, it is important to understand that they all share a critical attitude to traditional ways of understanding the nature, essence and laws of the world.

The innovations of thinkers in post-classical philosophy was so impressive that whole schools soon began to form around them. Thus Freud officially became the leader of the school of psychoanalysis, and Husserl - phenomenology. The informal (unspoken) leaders were Pierce (pragmatism) and Nietzsche (philosophy of life). Despite the objective change in the epistemological perspective of philosophy in the post-classical paradigm, it will nevertheless be erroneous to believe that the new philosophy has completely supplanted the previous types of classical philosophy. Rather, expansion of the field of alternatives happened. The hegemony of the classics gave way to the competition of post-classics. Therefore, throughout the entire 20th century, the most intense scientific and philosophical conflict has been going on between the axiology of nihilism and constructivism, between radicalism and conservatism of thought..

To be precise, a reaction against post-classical philosophy arose as early as the 19th century. Thus, under the slogan "Back to Kant" neo-Kantianism was formed, and under the slogan "Back to Hegel" neo-Hegelianism was created.

Returning to the topic of the reasons for the emergence of the paradigm of post-classical philosophy, we can say that there were several of them and that they constituted a kind of network of conditions. That is, in this case it is impossible to speak of determination of a direct type, when one cause rigidly entails an inevitable consequence. It is more correct to say that the social, political, cultural contexts of that time created a number of prerequisites that served as a condition for the possibility of the emergence of a fundamentally new type of thinking..

Be that as it may, post-classical philosophy appears in the era of crisis as a reaction to said crisis, and therefore it would not be an exaggeration to call it a "philosophy of crisis". As such, post-classical philosophy breaks down into 2 points: the moment of radical criticism of traditional philosophy and the moment of positive creation of new concepts. But even when it comes to the second point, one should not forget that most of the ideas and concepts of post-classical philosophy are formulated mainly in polemics, and even in open opposition to classical ideas.

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了解社会行为者与个人行为者之间冲突的基本概念 BASIC CONCEPTS IN UNDERSTANDING THE CONFLICT BETWEEN SOCIAL AND INDIVIDUAL ACTORS

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本文介绍了马克思主义理论阶段的基础之一:革命批评。

通过对唯物辩证法的研究,本文总结了对两种基于金德加德并在后现代 主义哲学中扩展并在或多或少程度上与海德格尔,马尔库塞和福柯等人共 享的观念的分析和批判。 我们谈论社会中主题的概念以及语言在这种关系 中的作用。

由于它对马克思主义先锋队的重要性(目前是理论上的),因此这种批 评在意识形态征服过程中至关重要。 这就是为什么本文是进军马克思主义 形态的关键。

关键词:金德加德,马克思,辩证唯物主义,马克思主义,后现代主义,革命批评,社会个人,语言

Abstract. This article presents an introduction to one of the bases of Marxism in its theoretical phase: revolutionary criticism.

Through the study of the materialist dialectic, this article summarizes the analysis and critique of two conceptions based on Kindegaard and extended in postmodernist philosophy and shared to a greater or lesser extent by, among others, Heidegger, Marcuse and Foucault. We talk about the conception of the subject within society and the role that language plays in this relationship.

Because of the importance it has for the Marxist vanguard (currently theoretical), this kind of critique is fundamental in the process of ideological conquest. That is why this article is key in a foray into Marxist formation.

Keywords: Kindegaard, Marx, dialectical materialism, marxism, postmodernism, revolutionary criticism, social individual, language.

This article epitomize some fundamental ideas in understanding both socialization and languages (as a historical result of the latter). It was genuinely an answer to the widely-extended argumentation in relation to the conception of language as something not only higher than society (i.e. perceiving it as the cause and not the consequence of social relations), but even elevated over human relations toward matter (assuming that firstly may appear the terminology and latter the thing). As consequence of such assumptions, language comes to be something that is dialectically controlled by humans but not in a historical way, but rather in a spontaneous one; that is to say, language would be generated along the usual, casual way of living being the material expression of the *necessity* of humans to communicate themselves (not the result of their practical life), what leads us to conclude that, as an expression of human necessities, it actually reveals the requirements socially determined and, hence, it becomes the motor of production processes (i.e. if we need a glass, firstly we think that we need it, so firstly we think the term and then we materialize it through production). In other words, following such argumentation we would be assuming language as something *inner* to human as an existence *sui generis*.

I will us for my argumentation an adaptation of the language used by such literature, i.e. the terminology of simple relations and *relations between relations*¹, but giving to it a different nature.

From the relationship between the subjects, we ought to understand those that happen spontaneously, isolatedly. However, as soon as two people are born "isolated from society" by the grace of God and establish their own relationships, they are bound to establish their own society consequently, so also inevitably their relationships will no longer be "isolated from society". What does this mean? In principle, their relationships will no longer be spontaneous and will depend on their historical development, i.e. they will be linked to themselves, which will lead to relationships that are different from those in real society only by the number of individuals involved (and therefore the number of relationships). Obviously, the quality of relationships must also be different, but this has been historically developed in any society in dependence of the way in which material life is produced, so I don't ought to repeat Marx's words on this subject. These latter sort of relations are the so called "relation of relations"², that which is historically and socially related to itself when being the general determination but through the expression of many (apparently) different concretes.

But it is inaccurate to think that core relationships arise directly from the spontaneous relationship of individuals (i.e. the relationship itself). Although the truth is that there can be no relationship without subjects. Therefore, the subject is the core of his relationship and the relationship itself is the core of his subsequent relationship. However, there is a fundamental difference, which is that if the former relations are originated from spontaneity and therefore from individual subjects, then the latter is originated from historicity, i.e. they will not cover individual subjects, but historical

^{1&}quot;A human being is spirit. But what is spirit? Spirit is the self. But what is the self? The self is a relation that relates itself to itself or is the relation's relating itself to itself in the relation; the self is not the relation but is the relation's relating itself. Kierkegaard, S. 1980, p. 13. Emphasis added.

² Henceforth I will call them «core relationships».

subjects. Thus, the core relationship denies all spontaneity and individuality of the subject and is generated on a higher level; on a higher level, in which only history can intervene. Chronologically and ontologically, historical relationships prevail over spontaneous ones so that the former, although not literally generating the latter, provoke them by creating the social framework necessary for their development. Let's say, for example, that we go to buy meat and have a relationship with the butcher; the latter relationship is purely spontaneous: buying meat. But this stems from historical social issues such as the existence of the figure of the butcher, which in turn means meat production that responds to the inevitable existence of meat as a commodity, etc. We can thus see that this relationship is random and not decisive for society, and that it is the historical level of the relationship that causes it. In this sense it is requirable to remind the following quotation of Marx:

«The concrete is concrete because it is the concentration of many determinations, hence unity of the diverse. It appears in the process of thinking, therefore, as a process of concentration, as a result, not as a point of departure, even though it is the point of departure in reality and hence also the point of departure for *observation* [Anschauung] and conception.»³

And here comes the second interesting question: that man, in turn, embodies two opposite natures. On the one hand, he acts as a specific subject, addressing to an other individual, who also reacts in a sensitive (inevitably material) way. Each of them has a relative personality (in here it would be interesting to remark that personality is also a social product) and acts in accordance with it in a certain way. However, he always behaves as a member of society (positively or negatively (in the ontological sense)) and therefore as a common subject (be it a student, unemployed, homeless, worker, etc.) in such a way that in his generality he does not act in accordance with his concrete characteristics, but in accordance with his generality; in other words, he does not act in accordance with his individual characteristics, but in accordance with his social characteristics, so he acts and satisfies some "social interests" which are given to him and which get out of his control.⁴ Therefore, spontaneous relations are generated by two sides; they are generated by both natures of the subject. The general nature is the one that occurs historically and no more than crystallizes in society as a whole through impersonal relations; the special nature of the subject allows such crystallization not on the general but on the individual level, so that it becomes a necessary human material basis for the common existence of the maximal relations. [Note: from this we extract many of the mistakes of the so-called "social sciences", which try to study society either through spontaneous relations or through general relations, always ignoring the opposite and often ignoring itself].

To top it all off, the language "appears". In short, language is given first and

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³ Marx, Karl Grundisse. - German 1939–41: Penguin Books in association with New Left Review, 1973, 1857–61. - Page. 34.

⁴ No other theory, except the Marxist one, explains better in detail how this development happens.

foremost by the need to relate to the material environment as a *result* of the social practice to reproduce its means of life; consequently, language arises only as a result of human and therefore historical material relations and cannot be separated from them. Therefore, the language is created at a general level and used at a specific level. Often changes in society are desired as a result of a change in language or the use of language. However, this situation is doubly utopian inasmuch, on the one hand, the most that a small change in spontaneous relationships can aspire to is a small change in language. That is, given the nature of a language, since it is used spontaneously but generated historically, only historical modifications can completely modify the language *by changing its material base*. However, the only level of modification that spontaneous social change can aspire to is a change of language in the form (not in matter) in which spontaneous relationships develop; for example, in what may be a register or dialects, although the latter contain a much deeper historical question than the former.

The same thing will happen in the opposite direction. Small linguistic changes (such as the introduction of the female plural in Spanish/Catalan in substitution to the commonly used masculine plural) can only provoke small changes in spontaneous social relations, causing the form of discourse to change, while the nature of discourse remains intact. That is, neither the figure of the butcher nor the meat industry will disappear as a result of the fact that the subject will no longer be called the "butcher", but we will simply call them differently. Therefore, any post-modernist struggle that tries to change society through language is doomed to failure. Only a change in social relations leads to a change in society, so only a historical (revolutionary) subject can change society and language. Not because the bourgeoisie is no longer called the "bourgeoisie", neither because capitalism stops being called "capitalism", one or the other may disappear.

References

1. Ignacio Heiriku López Sashida. Dehumanization: a sociopolitical phenomenon: seminar paper, Political Science 2020. - pp 31.

2. Kierkegaard, S. (1980). The Sickness Unto Death. (H. Hong & E. Hond, translators) Princeton, NJ:

3. Princeton University Press.

4. Marx, Karl. Grundisse. - German 1939–41: Penguin Books in association with New Left Review, 1973, 1857–61. - pp 862.

5. М. В. Попов. Социальная Диалектика. - Санкт-Петербург: Издательство Политехнического университета, 2014. - 468 с.

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孔登(KONDON)民族村儿童的民族文化认同形成 FORMATION OF ETHNOCULTURAL IDENTITY AMONG CHILDREN IN THE NATIONAL VILLAGE OF KONDON

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民族文化认同是一种社会现象,其组成部分是民族文化教育。俄罗斯联邦政府侧重于年轻一代的民族文化教育,在重要任务中关注发展,保存,传播民族文化及其克服问题。在作者的文章中,根据现场资料,考虑了对儿童进行民族文化教育的有效手段-这些是民间舞蹈,民族游戏,体育和民间文学艺术。对学龄前儿童的民族文化教育体系进行了调查,学校研究了利用儿童各种形式工作的方案,包括国定假日,博物馆工作,节日,手工艺品展览。 I. A. Lopatin,Yu的作品。 A. Sem, L. I. Shrenk, V. I. Prokopenko, V. Ch。 Beldy, P。Ya。冈特马赫(N.B.)密西根州基尔市Zhornitskaya, S.F. 卡拉班诺夫对我们的研究最为感兴趣。

关键字: 民族文化认同, 民族文化教育, 纳奈。

Abstract. Ethnocultural identity is a social phenomenon, an integral part of which is ethnocultural education. The Government of the Russian Federation focuses on the ethnocultural education of the young generation, paying attention to the problems of development, preservation, dissemination of national culture, and their overcoming in the context of important tasks. In the article by the author, on the basis of field material, effective means of ethnocultural education of children are considered - these are folk dance, national game, sports, folklore. The system of ethnocultural education of preschoolers has been investigated, the school has studied a program using various forms of work by children, including national holidays, museum work, festivals, exhibitions of arts and crafts. The works of I. A. Lopatin, Yu. A. Sem, L. I. Shrenk, V. I. Prokopenko, V. Ch. Beldy, P. Ya. Gontmakher; N.B. Kile, M.I. Zhornitskaya, S.F. Karabanov were of the greatest interest to our study.

Keywords: ethnocultural identity, ethnocultural education, Nanai.

In 2019, we conducted a field study in the national village of Kondon, Solnechny District, Khabarovsk Territory, with the aim of identifying the specifics of forms of social identity, characteristic ethnic features in the upbringing of Nanai children, who are one of the many aboriginal peoples of the Amur region. The purpose of ethnocultural education is to familiarize children with the culture of their native people, the ability to assimilate the experience of generations in the formation of modern standards, to induce the desire to know, to preserve, become the bearer of the Nanai culture. From birth, they strive to educate children in a comprehensive manner. Developing them physically, psychologically, morally, morally. An important aspect in the implementation of ethno-cultural education is kindergarten, which forms the general culture of people. In the kindergarten "Berezka" 40 children are introduced to the national culture through artistic and aesthetic development under the program "Revival of national traditions", which has been introduced into all groups of the kindergarten. We noticed that almost all elements in kindergarten are associated with the Nanai culture. These are drawings on the walls, patterns on the windows, clothes on toys with which children play, patterns on children's furniture, inscriptions in groups. Children learn folklore, told in the form of telungu, myths, sagas, stories, legends of various contents. Of particular importance for the upbringing of children is the protagonist of the epic Mergen - a successful hunter or fisherman who perfectly mastered a bow, spear, and was distinguished by diligence, intelligence, and prowess. (1.p. 290)

According to our observations, reading Nanai fairy tales to children, villagers analyze every moment so that the child understands its meaning. And they ask each child to draw a part of the fairy tale, then they combine all the drawings to make the whole fairy tale in pictures.

Often for children, masters from the village are invited to a master class on decorative and applied art. Children are shown how to dry, process fish skin. In the center of creativity, children regularly organize exhibitions of their works on a national theme. This is Akoan - a flat doll made of paper or fish skin, paper tues, appliqués with simple ornaments. The National Exhibition provides an il-lustrative example for the perception of elements of Nanai culture.

In the gym, children are engaged in physical education with elements of Nanai games - pacachi, ball game, ambakachi - tiger game. Celebrations in national costumes are held in the music hall. Children learn national dances, stage scenes based on national fairy tales and learn songs.

Teaching the native language is carried out in a playful way. Mathematics is carried out using the Nanai tree. The "tree", in Nanai - "morzo", is invisible, it grows inside a person at the beginning of his life and falls with his death. A child grows - and a tree grows inside him. The soul-tree was traditionally thought of as a double of a person. (2 p. 36)

The school ethnographic museum conducts an excursion for preschool chil-

dren and schoolchildren. It contains a collection of unique Nanai household items. When surveyed, all students would like to further study the history and culture of the Nanai people. The school also has a small stand with an exhibition of students' works dedicated to the Nanai culture. For example, in the lessons of the labors of girls, they learn Nanai embroidery, help to distinguish elements of floral and geometric patterns, and to name them correctly. In the creative workshop, the master teaches wood carving, forming students' respect for the traditions and culture of their native people; respect for work.

From the results of a survey of the head of additional education Natalia Mamodzhonovna, the dance ensemble "Keku", which means "flower", we found out that she has developed a special program where the younger generation is introduced to the national culture of their people. The leader, shaping the ethnic identity of children, instilling a sense of respect for their culture, teaches 30 children aged 7 to 17 for free. For them, dance is a mechanism for transferring cultural experience from generation to generation, which performs an entertaining, educational, educational function. Their creative activities are carried out in pantomime performances, dances, arts and crafts. The props, which were often used traditionally for cleansing from evil spirits, also carry symbolic meaning. These are shavings, tambourines, birch barks, ritual large and small sticks.

Dances with the name: "fisherman's dance", "seeing off to the hunt", "hunter's dance", "sable dance" carry the traditional meaning, which consisted in appeasing fish while fishing and inviting birds and animals during the hunt. Thus, the customs and rituals of the Nanai were passed down from generation to generation. For example, the idea of the spirits of the masters of the taiga, the spirits of the masters of the water element, the souls of the living and the dead, who helped or hindered fishing; "Feeding" these spirits and souls; admiration for the spirit of the master of fire; fumigation of fishing gear with smoke. (3 p. 42)

National dance is a necessary component of ethnic identity, an integral part of spiritual culture, which occupies an important place in the life of the village.

In kindergarten, school, on holidays, the national competition "Hupigori, Andana!" Is held, which includes creative, intellectual and sports-game tasks. For this, its participants must have information about the life, culture, traditions of the indigenous peoples of the Amur region. Games such as "Pacachi" are held, that is, a patchwork ball competition; "Thueri Kupin" is translated as winter game; "Tomyan" jumping by the rules; "Toptodi" - a rope game. Twice a year, sports events are held with Nanai outdoor games between teams, "Health Day" with elements of national sports and always in national costumes. From the survey, we found out that a significant problem is the development of modern models of sports equipment for practicing national sports, since inventory and equipment are not sold in specialized stores. They can be ordered only from traditional craftsmen. To date, the activities carried out with a national flavor in a kindergarten, school, open-air museum, national cultural center, affect the formation of the ethno-cultural consciousness of children, their ethnic identification. Based on the appeal to the origins of the traditional Nanai culture, the experience is transferred to the younger generation through language, history, folklore, arts and crafts. According to the results of the research carried out in the village, it has shown that the preservation and transmission of the Nanai culture takes place through such institutions as: a kindergarten, a school, a museum and a cultural center. Also through educators, teachers who increase the level of motivation for learning the native language, the development of speech activity in the native language, awareness of ethnicity, and least of all through parents.



Photo by the author: Ethnocultural exhibition in the kindergarten Berezka. Condon National Village.

References

1. History and culture of the Nanais: historical and ethnographic essays: monograph / ex. ed. V.A. Turaev. SPb: Science RAS, 2003.-326P.

2. Chadayeva A. Ya. There is neither Ellin nor a Jew.- M.: Literary Russia, 2016.-304P.

3. Gaer, E.A./Traditional ritualism of the Nanai in the late XIX - early XX centuries/– Moscow: Thought, 1991. – 130P. DOI 10.34660/INF.2020.93.85.017

巴黎国际捍卫文化作家大会(1935年)与法苏文化对话的发展 THE INTERNATIONAL CONGRESS OF WRITERS FOR THE DEFENSE OF CULTURE IN PARIS (1935) AND THE DEVELOPMENT OF THE FRENCH-SOVIET CULTURAL DIALOGUE¹

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这项研究的目的是研究1935年在法苏文化对话中在巴黎举行的国际保护 文化作家大会的活动。揭示了1930年代法苏文化和睦的前提。其中,最重 要的是以下因素: 法国作家和苏联在反法西斯主义浪潮中的和解,苏联领 导人在最大的法国作家的帮助下创造良好形象的愿望。在西方的苏联。大 会前夕,苏联和法国代表团面临的任务已显示。大会讨论的主要议题是保 护欧洲文化免受法西斯主义夺取权力的破坏性冲击的问题。同时,对于许 多参与者而言,保护文化的问题更为广泛,包括确保思想自由,创造力的 独立性。法国参加国会的代表就在苏联流亡的法语作家Victor Serge的案 子发表的讲话就说明了这一点。显示的是国际捍卫文化作家大会期间法苏 文化对话的矛盾,一方面与试图向苏联代表大会代表施加压力,阻止自由 讨论的矛盾有关。 。另一方面,许多法国参与者也希望提出有关苏联创造 自由的问题。由于大会的活动,法国作家发表作品时,法苏之间的接触加 强,出现了联合文学项目,并采取了具体步骤来反法西斯主义。但是,在 代表大会期间,法国左翼作家也对他们对苏联国家的态度进行了划界。

关键字:国际作家保护文化大会,法苏文化对话,法国左翼知识分子,反法西斯主义

Abstract. The research is aimed at studying the activities of the International Congress of Writers in Defense of Culture, held in Paris in 1935, in the context of the Franco-Soviet cultural dialogue. The prerequisites for the Franco-Soviet cultural rapprochement in the 1930s are revealed. Among them, the greatest importance is attached to the following factors: the rapprochement of French writers and the USSR on the wave of anti-fascism, the desire of the Soviet leadership, with the help of the largest French writers, to create a favorable image of the USSR in the West. The tasks facing the Soviet and French delegations on

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the eve of the Congress are shown. The main topic for discussion at the Congress was the problem of protecting European culture from the destructive onslaught of gaining power from fascism. At the same time, for many participants, the issue of protecting culture was much broader, including ensuring freedom of thought, independence of creativity. An indicator of this was the speeches initiated by the French participants in the Congress on the case of the French-speaking writer Victor Serge, who was in exile in the USSR. Shown are the contradictions of the Franco-Soviet cultural dialogue during the International Congress of Writers in Defense of Culture, which were associated with an attempt to put pressure on the participants of the Congress by the Soviet delegation, preventing free discussions, on the one hand. And also the desire of a number of French participants to raise questions about freedom of creativity in the USSR, on the other. As a result of the activities of the Congress, Franco-Soviet contacts intensified in the publication of works by French authors, joint literary projects appeared, and concrete steps were taken to counter fascism. However, in the course of the Congress, a demarcation among French left-wing writers on the issue of their attitude to the Soviet country was also indicated.

Keywords: International Congress of Writers in Defense of Culture, Franco-Soviet Cultural Dialogue, French Left Intellectuals, Anti-Fascism

On June 21-25, 1935, the International Congress of Writers in Defense of Culture was held in Paris. The Congress took place against the backdrop of the strengthening of Franco-Soviet cultural contacts in the 1930s. Since the beginning of the 30s of the XX century, there has been another attraction of representatives of the French cultural elite to the USSR. The desire to establish a cultural dialogue was explained both by the conditions of the international situation and by the desire of the Stalinist leadership to create a positive image of the Soviet country in the West. The creation of this image, according to the plan of the Soviet side, should come from the key figures of European culture of that time, known for their active social position of intellectuals, which gave their assessments a special international authority. In addition, there is an obvious interest of French intellectuals in the Soviet experiment, an attempt to understand the conflicting information about life in the USSR. In this regard, in the late 1920s - mid 1930s, there was a whole series of travels by French writers to the country of the Soviets. For example, such French writers as Henri Barbusse, Romain Rolland, Luc Durten, Charles Wildrac, Georges Duhamel and others visited the USSR. The international factor also played an important role. By the mid-1930s, European intellectuals realized the need to implement the idea of forming an anti-fascist culture. A specific feature in their views is that it was the USSR that they perceived as the main fighter against fascism. Thus, in the face of a complicated international situation, "the Soviet Union was perceived not just as the first country of socialism on the

planet, but as a bulwark of peace and resistance to aggressive forces." Thus, the rapprochement between France and the USSR in the face of the threat of fascism, as well as the signing in 1935 of the Soviet-French treaty on mutual assistance created opportunities to bring cultural contacts between the two countries to a new level. The next stage of this dialogue was to be the 1935 Paris International Congress of Writers in Defense of Culture.

At the same time, the Congress for each of the parties to the dialogue provided for very specific tasks. The task of the Soviet delegation was to draw the leading figures of French literature into the orbit of their political and cultural influence. However, in contrast to the 1920s, when contacts developed mainly with representatives of "proletarian literature", in the mid-1930s. The overly revolutionary Western writers no longer fit into the new Soviet reality, and the emphasis of Soviet policy shifted towards a wider circle of anti-fascist writers.

As for the French writers, in their striving for a dialogue with Soviet art, French intellectuals proceeded from the idea of influencing it through familiarizing with Western values. At the same time, they sought to maintain a critical view of Soviet reality, without revealing a blind admiration for the USSR.

The Congress was attended by delegates from 35 states, 61 reports were prepared. The composition of the Congress participants is very representative, including the most famous writers of Europe in the mid-30s of the XX century, who determine the cultural climate of the era - Henri Barbusse, Heinrich Mann, Anna Zegers, Martin Andersen-Nexe, Andre Gide, Andre Malraux, Louis Aragon, Aldous Huxley, Berthold Brecht, Lyon Feuchtwanger, Ernest Hemingway. As for the Soviet delegation, it was very numerous, consisted of delegates from the Soviet republics, as well as representatives of the literary elite, such as I. Ehrenburg, M. Koltsov, N. Tikhonov, A. Tolstoy, etc. Meanwhile, the selection of delegates for political criteria, led to the fact that it did not include Soviet writers significant in the West. And only the appeals of A. Gide and A. Malraux to the Soviet leadership forced Moscow to send B. Pasternak and I. Babel to the Congress as speakers.

The main theme identified by the organizers of the Congress is the threat to the existence and development of European culture in the face of the onset of fascism. Writers from different countries expressed their desire to unite in order to protect European culture from the destructive onslaught of fascism, which was gaining power. At the same time, the Soviet delegation actively began to embody its main goal - to unite foreign writers around itself, presenting the USSR as the main fighter against fascism. Jean Guéhenno in his book of memoirs "Difficult Faith" (1957) noted that the Soviet delegation considered the Congress a convenient means, on the basis of anti-fascism, to rally around itself on a concrete political platform, not only left-wing writers of the West: "In his famous article, Gorky asked:" Who are you, masters of culture, with? " And the Congress, organized by the Communist

Party in Paris on orders from Moscow, had to give a public answer to this question. It was a propaganda action. The resourcefulness of the organizers was to get from writers far from communism, such as Aldous Huxley, Heinrich Mann, Forster, Benda, Gide ... to participate in the debate. No matter what they said, the main thing was their presence and their name." J. Guéhenno emphasized that the very procedure of the congress - the time, the order of the speech - was so well planned that "all our words should have led to the ark of a new Moscow god, just as a synagogue leads to a church, and all prophets to the Messiah." The feeling of pressure from the Soviet delegation was also recorded by other participants in the Congress. Thus, the editor of the left-Catholic magazine "Esprit" E. Mounier wrote: "How much conformism, how much groveling before this Great Stalin and the infallible USSR. The impression is that you are dealing with a Roman curia." The strictly regulated scenario of the Congress was also described by surrealist writers, as A. Breton reported: "The International Congress for the Defense of Culture" took place under the sign of systematic strangulation: strangulation of genuinely cultural problems, strangulation of voices not recognized by the chapter ... Partial strangulation of speeches Madeleine Paz, Plisnier, pure and a simple concealment of the speech of the Chinese delegate, a complete withdrawal of the word Nezval, ... but at the same time - touching declarations by Malraux, Waldo Frank or Pasternak - a wave of repetitions, infantile considerations, toadying: those who claim to save culture have chosen an unhealthy climate for it".

The problems of the French-cultural dialogue within the framework of the Congress that was taking place became apparent not only in the form of dissatisfaction of the French participants with the domination of the Russians, but also in the dissatisfaction of the Soviet delegation with the posing of inconvenient questions from the French. In particular, the Soviet participants expressed their indignation at the fact that the "case of Viktor Serge", a French-speaking writer who lived in the USSR, sent by the Stalin regime into exile in Orenburg, was raised at the congress. According to the organizers of the Congress, the speeches of the speakers were supposed to focus on the problem of the threat to culture from fascism, while for many participants the issue of protecting culture was much broader, including ensuring freedom of thought, independence of creativity. This is how the intellectuals who raised the "Serge case" at the Congress understood the call to protect culture. Madeleine Paz, who spoke out in defense of the exiled oppositionist, explained her position by the fact that all the dangers to culture indicated by the Congress are clearly illustrated by the fate of Victor Serge in the USSR. At the beginning of her speech, she stressed that all the points of the plan proposed for discussion: "The dignity of thought. Freedom of Expression. Direct or indirect forms of censorship. A writer and a link" - confirm the need to protect Serge, appeal to the conscience of independent intellectuals. Having outlined the revolutionary path of Kibalchich - Serge, M. Paz came to the conclusion that Serge is one of the most genuine revolutionaries, since his task was to preserve the independence of thinking and the truth about the revolution. In her opinion, practically everything declared from the rostrum by representatives of various delegations fully corresponded to Serge's ideas about the protection of man, truth and freedom of thought. M. Paz ended her speech with the words: "There are voices that cannot be killed! There are impulses that cannot be destroyed!" Gaetano Salvemini, Emmanuel Mounier and Charles Plisnier also addressed the Congress with a call to save Victor Serge.

N. Tikhonov gave an explanation on the Serge case on behalf of the Soviet delegation. He emphasized that Serge is primarily a Soviet citizen, not a French-speaking writer, and therefore his activities should be considered as the activities of a counter-revolutionary. In his memoirs about the Congress, he wrote: "One day I was suddenly told that I should speak on the following occasion. In Leningrad, a Trotskyist named Victor Serge was arrested (I had no idea who he was), and Madeleine Paz will speak at the meeting tomorrow morning, and I must answer her." Ignorance of Serge's case did not prevent N. Tikhonov from composing an answer, because, as he wrote, "I knew in advance what the essence of her speech was, and I had a ready answer, I would say, Jacobin. I was very angry: why the hell should I oppose some Serge?" Later in his memoirs V. Serge was sincerely perplexed about Tikhonov's inexplicable forgetfulness, because it was Serge who translated his poems into French.

The Serge case sparked a debate among the Congress participants. The case of protecting the writer, probably, would not have caused such active discussion, but the writers who tried to save Serge, in fact, juxtaposed fascism, from which culture must be protected, with Stalinism, which is also a threat to its free development. The organizers of the Congress tried to nullify the incident with the Serge case by not answering questions about Stalinism and the system of government in the Soviet Union. Thus, "Aragon and Ehrenburg did not give the floor to the speakers on these issues and stopped shouting from the seats. Malraux tried to give the floor to Serge's friends, but he was not allowed to do so." Congress organizers tried to portray the incident as a departure from the main theme of the meeting. Meanwhile, it was not possible to hush up the "Serge case": only Madeleine Paz took the floor three times in defense of Serge, and Kirshon and Ehrenburg rushed to the aid of Tikhonov from the Soviet delegation, proving the Soviet government was right in fighting the opposition. The participants in the Congress split: most of them were satisfied with the answer of the Soviet delegation, others covertly or openly sympathized with Serge. The Soviet delegation was supported by the German writer Anna Segers, outraged by the fact that an extraneous issue is being discussed at the congress at a time when "the heads of my friends are flying. In Germany heads are being cut off, can you imagine that? " Enjoying great authority and reputation at that time, André Gide continued the list of those who assured Congress of the honesty of the Stalinist regime and respect for it from the writers of the West. In fact, André Gide saved Stalin's "European reputation, by inventing a win-win move, the meaning of which was ingeniously simple: let Stalin remove his suspicions himself".

The incident with the Serge case, which stirred speculation about the true essence of the Stalinist regime among the participants in the Congress, was presented by the pro-Soviet and Soviet press as intrigues of the counter-revolution. So in the "Commune" in an article covering the activities of the Congress, the following lines are quoted: "Let us mention here the attempts of Mrs. Paz and Plisnier to sabotage the work of the meeting of writers from 35 countries under the pretext of protecting the counter-revolutionary V. Serge." The Soviet totalitarian press was even more harsh. "Moscow newspaper", dated June 29, 1935, noted the victorious exposure of the opposition's plans: "Finally, André Gide, the German writer Anna Segers and the Soviet writers Tikhonov, Ehrenburg and Kirshon, accompanied by enchanting applause of all delegates, branded two Trotskyists who tried to intervene from the height of the Congress rostrum with speeches against the Soviets."

Thus, the International Congress of Writers in Defense of Culture 1935, on the one hand, took a number of important practical steps to protect culture, in particular, the International Association and the International Bureau of Writers in Defense of Culture were founded at the Congress, which were supposed to fight against war, fascism and other hazards. In line with the Franco-Soviet rapprochement during the congress, the further publication of the French classics of the USSR and anti-fascist writers continued, as well as joint projects, and personal friendly ties were established between French and Soviet authors. An example of such cooperation, for instance, is the joint action "Day of Peace", initiated by M. Gorky and M. Koltsov with the involvement of French writers, among others. On the other hand, the Congress showed the complexities of the Franco-Soviet cultural dialogue. Many French participants in the Congress clearly felt the lack of agreement that prevailed at the Congress, and the unresolvedness of many issues, in particular, those related to an objective assessment of the political system in the USSR. Meanwhile, the problems raised at the congress related to spiritual freedom in the USSR had their real consequences. So, under the obvious influence of the fight at the Congress in defense of culture, changes took place in the fate of V. Serge. Subsequently, he recalled: "The cynical statement justifying my captivity by participating in an assassination attempt, committed two years after my arrest, made many shudder. Andre Gide went to the Soviet ambassador, but he could not explain anything to him. At about the same time, invited to Moscow, Romain Rolland, at a reception with Stalin, raised the issue of the "Victor Serge case."

We turned to the chief of the political police Yagoda, who did not find anything in his affairs (if he found even the slightest hint of a confession signed by me, I would have died). Stalin promised that I would be allowed to leave the USSR with my family". They kept their promise, and in 1936 V. Serge managed to leave the USSR and move abroad.

In our opinion, the Soviet delegation at the congress managed to consolidate in the eyes of Western writers the image of the USSR as a stronghold of anti-fascism in the world. The work of the Congress also resulted in another delimitation in the ranks of the Western left intelligentsia on the issue of freedom and violence in the USSR. The Congress showed the contradictions of the Franco-Soviet cultural dialogue, connected, on the one hand, with the desire of French intellectuals to objectively assess the degree of artistic and political freedom in the USSR and, on the other hand, with the inability to turn off the discussion at the Congress from the path clearly marked by Moscow.

References

1. Kulikova G.B. USSR 1920-1930s through the eyes of Western intellectuals // National history. 2001. N_{2} 1. P.7.

2. Dialogue between writers. From the history of Russian-French cultural ties of the XX century. 1920-1970. M., IMLI RAN. 2002. P. 244.

3. Ibid.

4. Quote. from: Winock M. Histoire politique de la revue «Esprit» 1930-1950. P.: Ed. du Seuil, 1975. P. 116.

5. Breton A. Position politique du surrealisme. P.: Ed. du Sagittaire, 1935. P. 103.

6. Cahiers Henry Poulaille. P.: Éditions Plein chant, 1991. № 4-5. P.205.

7. Ibid. P. 213.

8. Tikhonov N. Oral book // Questions of literature. 1980. № 8. P.173.

9. Ibid. P.174.

10. Serge V. From Revolution to Totalitarianism: Memoirs of a Revolutionary. M.: SPC "Praxis"; Orenburg: "Orenburg book", 2001. P. 388.

11. Berberova N. The Iron Woman. M.: Politizdat, 1991. P. 266.

12. Tikhonov N. Oral book // Questions of literature. 1980. №8. P.174.

13. Babintsev V., Ivanitskiy V. Introductory article for V. Serge's publication "Midnight of the Century" // Homeland. 1991. № 4. P. 30.

14. Cahiers Henry Poulaille P.: Éditions Plein chant, 1991. № 4-5. P. 216.

15. Ibid. P. 216-217.

16. Serge V. From Revolution to Totalitarianism: Memoirs of a Revolutionary. M.: SPC "Praxis"; Orenburg: "Orenburg book", 2001. P. 389.

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与俄罗斯史学中"新方向"的某些冲突 SOME COLLISIONS WITH THE "NEW DIRECTION" IN RUSSIAN HISTORIOGRAPHY

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这篇文章考虑了"西拉罗夫学校"的历史学的苏联和后苏联时期的学科 以及在十九世纪至二十世纪初对俄罗斯社会经济历史的研究中继承他的" 新方向",从本质上改变了"短期课程"的思想,并获得了连续性和破裂 性问题以及科学中的人为因素。

关键词: " AL Sidorov学校", "新方向", "新传统主义者", Bovykinites, "多元结构性", "从上方实行资本主义", "农村资本 主义", "农业资本主义", 贫困化和无产阶级化 农民, "促进者"和" 降临者"

Abstract. The article considers the late Soviet and post-Soviet subjects of the historiography of the "school of A.L. Sidorov" and the "new direction" inheriting him in the study of the socio-economic history of Russia at the turn of the XIX-XX centuries, which qualitatively transformed the" short-course "ideas, with access to the problem of continuity and rupture and the personal factor in science.

Keywords: "School of A.L. Sidorov", "new direction", "neo-traditionalists", Bovykinites, "multistructurality", "imposition of capitalism from above", "capitalism in the countryside", " agrarian capitalism ", pauperization and proletarianization of the peasantry, "promoters" and "demoters"

There was an ambiguous, extremely dramatic Soviet era on the way to the Future, and there were Personalities - heralds and carriers of the Future. A.L. Sidorov and his students-historians, all front-line soldiers - they are among them. But it seems to repeat itself over and over again: we are lazy and not curious. Or - more precisely: we are like "illegitimate children, bereft of inheritance, without connection with ... our predecessors on earth ..."? In any case, post-Soviet historiographic practice has given and continues to give grounds for such disturbing judgments. And although one cannot speak of a wide acquaintance of Soviet historians with the developments of the "new directors", nevertheless, the newest cognitive situation is revealed in a much more pessimistic tone .

Even if we take the works of historians from the circle of "undoubtedly knowl-

edgeable", the "figure of silence" is almost one of the clearly widespread methods of writing regarding the "new direction", including about K.N. Tarnovsky, a researcher and concrete historical sections of the general object of knowledge and at the same time a historiographer who generalizes the results of specific developments of colleagues. The self-determination of the "new direction" itself is to a large extent the result of the analytic-synthesizing activity of Konstantin Nikolaevich.

Let us make a reservation: undoubtedly, very valuable, especially in connection with what has been said, the editions in memory of P.V. Volobuev, collection for the 90th anniversary of V.V. Adamov and the collection in memory of K.N. Tarnovsky.

And at the same time, in the memorial editions of the memory of the "imperialist" too, also a student of A.L. Sidorov, but with a separate scientific destiny - V.I. Bovykin, with all the attention of the authors to the "new directional" cuts of Russian history, the "new direction" as a complex nonlinear open conceptual system – an essential component of Russian historical science - is absent, and the first historiographer of the "new direction". And this, *with all the personal expressed respect* from V.I. Bovykin in relation to the Teacher - A.L. Sidorov (but apart from the fact that Arkady Lavrovich is the "patriarch" of the new directors), and this, with the constant mention of grateful students V.I. Bovykin, his attitudes and calls for the greatest correctness in relation to scientific colleagues and predecessors.

Perhaps a happy exception in this sense is the article by S.A. Lomova in "Materials of Scientific Readings in Memory of Professor V.I. Bovykin". Without mentioning the "new direction" itself, the historiographic works of K.N. Tarnovsky, student of V.I. Bovykin nevertheless writes: "Later I learned that ... work in the archives is the "calling card" of the *school of A.L. Sidorov* "(emphasized by me - V.Sh.¹), in relation to the" post-war period "speaks about the" research of *I.F. Gindin* ... V.I. Bovykin and the *school A.L. Sidorov* as a whole". At the same time, the author gives a detailed record of the breakthrough achievements of I.F. Gindin in the field of banking history, emphasizing that "in the 80s - the first half of the 90s there were no ... significant changes in approaches" to the topic, "laid down in the 50s and 60s". In general, in fact, due to the "new direction" student V.I. Bovykin rewards, although even in this case the omission of a seemingly taboo historiographer-predecessor remains, and for some reason the graduate student immediately knew that within the framework of the topic proposed by her scientific advisor she would "inevitably have to polemize" with the "new direction" - I.F. Gindin.

It is curious that the situations of conceptual confrontation between real "neo-traditionalists" and "new direction", if attention was paid in the mentioned editions, then on the part of foreign historians who highly appreciate V.I. Bovy-

¹ All subsequent selections in the text were made by the author of the article

kin, but shared the essential positions of the "new directors": L. Haymson, S. Ito, partly I. Maya, gratefully writing about V.I. Bovykin and at the same time about constructive for him "cooperation with researchers from the circle of A.L. Sidorov ". At the same time, the reason for the rejection of the "new directional" positions of V.I. Bovykin and L. Heimson and S. Ito saw the algorithm over him as: a high level of economic development of Russia at the beginning of the XX century = a pattern of the October Revolution (and no other is given).

As an isolated mention in the materials of the "Readings" mention of "intense discussions" caused, say, by the publication of the "new direction" collection "The Russian proletariat: appearance, struggle, hegemony" (Moscow, 1970), discussions, from which V.I. Bovykin, and who, according to the author of the memoirs, had only "much superficial, far from science," although in fact the collection seriously corrected the *official* ideas about the nature of the revolutionary process in Russia in 1917 and played its role in the campaign to "close" the "new directions".

It is clear that the content of the texts dedicated to V.I. Bovykin, their "memorial" predestination could not but influence. And nevertheless, an outspoken figure of silence on the "new direction", the assertion that it was "Bovykin who laid a solid foundation for the study of the socio-economic history of Russia at the turn of the XIX-XX centuries." that with the 1984 monograph he (the "neo-traditionalist") allegedly "goes far beyond the framework of the Soviet historical school ...", overcomes the "vice of a narrow methodological corridor", that "the school of V.I. Bovykin ... was different" from the school of A.L. Sidorov's "significant expansion of problems" and approaches - all this can hardly be recognized as correct in relation to the once common scientific school, and to the "new direction". In addition, V.I. Bovykin was considered necessary to mention among the teacher's achievements his 1988 monograph "Russia on the Eve of Great Achievements ...".

This situation forces us to return to the content of this work - criticism of the "new direction", which was rehabilitated shortly before its publication (after almost 15 years of public non-existence). Among the author's many claims to the "new directors" is a categorical rejection of their concept of the agrarian-capitalist evolution of Russia, including: the breeding of the phenomena of "capitalism in the countryside" and "agrarian capitalism", the rural and agrarian bourgeoisie, pauperization and proletarianization of the peasantry, the designation of the non-identity of the small-scale producer and the petty bourgeoisie, commodity-money and commodity-capitalist relations with the proven absolute predominance of the first members of these double bonds and the conclusion about agrarian capitalism that never took place in Russia.

For the critic, the ultimate task is a linear, mechanistic goal of "protecting" the socialist revolution in Russia from any encroachments on its regularity. And therefore, according to his scenario, by the end of the XIX century, capitalist rela-

tions in the countryside dominated (without any desire to delve into the differences between "capitalism agrarian" and "capitalism in the countryside") and at the same time capitalistically organized landlord economy dominates everywhere, and then all this is also progressively pushed by the Stolypin reform.

Lenin chooses exaggerated assessments and judgments on the capitalist transformation of agriculture, prior to the experience of the First Russian Revolution, erroneous ideas about the social-class structure of the Russian peasantry, without taking into account Lenin's own adjustments to his own assessments following the results of the 1905 revolution. At the same time, the historian writes that, according to V.I. Lenin, by the end of the century in the agrarian sphere of Russia there was "victorious ... primitive capitalism and far from being outlived ... remnants of feudalism", and surprisingly does not notice that in fact confirms the conclusions of the "new directors" about the spread of "capitalism in the countryside" in Russia, but in no way "agrarian capitalism", and with a significant preservation of the "remnants of feudalism." That is, it unwittingly confirms that we are not talking about the capitalist transformation of the agrarian system of Russia. In the end, landlord and communal land tenure and a whole range of different forms of land tenure from the bowels of feudalism - all this is the hard reality of Russia at the turn of the century, from which there is no escape. And the second stage of the agrarian system is land use according to the research results of A.M. Anfimova (see the problem of land lease) did not add arguments to the supporters of the concept of the victorious agrarian capitalism in Russia.

The author interprets the content of the labor service in his own way, reducing it to "wage labor and wages" - that is, I quote: "elements of capitalism", burdened, however, by "feudal ... use of the implements of the peasants", despite the fact that the latter in it "weakened "And" it eventually acquired a completely capitalist character. " But in this case, the author's workings of the second type automatically turn into pure agrarian capitalism. However, not only A.M. Anfimov and his colleagues, but also I.D. Kovalchenko, on whom V.I. Bovykin, recognizes "labor of the second kind" as remnants of feudalism (not to mention the labor of the first kind). Proved by A.M. Anfimov, the situation when nominal "hired labor" and "wages" (as well as money rent on rented land) are in fact quite often in the Russian countryside covered up by completely feudal, semi-feudal methods of interaction between landowners and the rural bourgeoisie with the peasantry, all this is ignored by the opponent "New direction". On the contrary, as if following S.M. Dubrovsky, even during the discussion with A.M. Anfimov, who declared the second social war in the countryside, since the nominal landowners were supposedly real capitalists, he seriously expanded this interpretation of supposedly real capitalism under the guise of feudal phenomena.

If we really start from the assessments of the agrarian reality of V.I. Lenin, then
we recall his "self-corrections" after 1905. Recognizing as "erroneous" the "overestimation of the degree of capitalist development of Russian agriculture": "the remnants of serfdom seemed to us then a petty detail", Lenin explained that "correcting" the mistake in replacing "the task of fighting the remnants of the old in the agricultural system ... with the tasks of fighting all of the old agricultural system". That is, the "agricultural system" is "old", non-capitalist!. With this in mind, how can anyone appeal to the authority of Lenin, insisting on the establishment of the capitalist mode of production in the countryside by the 80s of the XIX century."?

The author repeatedly replaces V.I. Lenina I.V. Stalin, who counts the October Revolution ... from March 1917 (the critic has the turn of the XIX - XX centuries). But with such an approach, both of them lose a common peasant revolution - a bourgeois-democratic revolution of a new type, according to Lenin (or a "communal-peasant revolution" in combination with the first), a revolutionary democratic alternative is lost - an essential component of the "field of opportunities" of Russia in 1917-1920. By the way, if the historian is at the forefront of the problem of the objective conditionality of the proletarian revolution in Russia, then why, in a strange way, he does not notice the conclusion of the "new directors" about the absence of a direct relationship between the successes of agrarian capitalism and the degree of possible support of the proletariat by the peasantry? The critic's formulations are contradictory both on the All-Russian agrarian market, and on the correlation of small-scale commodity production and capitalism, and therefore a valuable conceptual consideration of I.D. Kovalchenko on the need to distinguish between the small commodity market and the capitalist market - was not reflected in the author's constructions.

"Sins" of the "new direction" V.I. Bovykin also sees the special role of the state in the formula of "planting large-scale capitalist industry" in Russia. All this is defined by the critic, either as a *relapse of populism*, or as adherence to the "capitulatory line of Trotsky,"² or the line of Stalin (one asks, why not the line of Karl Marx - F. Engels about a natural, deliberate forced, imposed from above process of capitalist modernization in Russia)? At the same time, the "new directors" are, in fact, together with Trotsky and (through an incredible logical/illogical move) with Stalin, the denial of "objective prerequisites for a socialist revolution". However, in the course of presenting the concrete historical material V.I. Bovykin himself resorts to the use of "sinful" positions, but already without references to the opposed.

Among the most important objects of criticism of the author is the problem of the multi-structured economy of Russia. Categorically not accepting it in the interpretation of the "new direction", admitting openly incorrect overexposure in the texts of his "once classmates", V.I. Bovykin subordinates his search to the proof of the linear regularity of the unambiguously proletarian October. He even resorts to

² We are talking about the features of the historical development of Russia and the special role of the state in this.

an openly ideologized argument in the case of a *constructive* reaction to the idea of the multiformity of the "*bourgeois* historian" H. Haumann . However, the author himself, contradicting himself, repeatedly confirms the real multi-structured economy of Russia, writes about the fact of Russian "*pre-capitalist* structures", identifies "*two structures* that gave rise to ... / it turns out! - V.Sh. / two social wars." Finally, the historian notes that "by the will of historical destinies, Russia at the beginning of the XX century. ... personifying the main trends in the development of the then world ", actually repeating the position of K.N. Tarnovsky about Russia - model of the world.

However, in a surprising way, all this ends with the attribution of political opportunism to the "new directors" in the context of "restalinization" and the author's confidence in the failure of attempts to rehabilitate the "new direction" in the context of perestroika. "All... the efforts of the "new direction" to impose on Soviet historical science under the guise of the postulate of the multiformity of Russia a modified, but essentially the old scheme, which was based, it turns out, on "Stalinist ideas..."- all these efforts "were not crowned with success"- such is the verdict or *somersault* of a famous researcher. And as L. Hameson argued more than 10 years later, "he / Bovykin / defended this position until the end of his life".

Indeed, even at the public level (see Milan Congress of Economic History, monograph "Financial capital in Russia on the eve of the First World War") the historian, having adjusted some aspects of his "upward" platform, continued to defend it. The main thing for the author is that capitalism is a "dynamic element" with "significant potential for forward movement, " while "serf survivals... long doomed" - and how is there anything to argue about? As in the 1988 monograph, here the author has abstract logical reasoning and hopes about a possible "progressive capitalist far away" as opposed to "new directional" concrete historical revelations/fixations and comprehension of an extremely complex, contradictory agrarian (and not only agrarian) reality.

The situation with the conceptual revelation of I.D. Kovalchenko, who admitted that A.M. Anfimov, in the main - in denying the domination of agrarian capitalism in Russia at the beginning of the XX century (however, not only V.I.Bovykin, but also, surprisingly, colleagues and students of I.D.Kovalchenko do not notice this progress).

Bovykin's main conclusion in the last monograph is the same (since the 1970s - the "pogrom" years): "... Russia has entered the new century with a regional and sectoral national economic structure that has *developed on new, capitalist founda-tions*". And the post-Soviet smooth fit of the "upward" vector into the "optimistic" (regarding the modernization capabilities of tsarism) historiographic tradition is another proof of the correctness of V.P. Danilov on the *perniciousness* of "zeal beyond a scientific measure", zeal in the name of the politico-ideological, extra-scientific predestination of professional searches.

Let us repeat: with the collapse of the Soviet Union, the previous - from the 1960s to the 1980s - tendency of "pessimization" of foreign researchers, who previously "optimistically" assessed the modernizing capabilities of tsarism, begins to be supplanted by the "optimization" of "pessimists", and in the Russian Federation in the first place, (see works: A.A. Iskenderov, A.N. Bokhanov, B.N. Mironov, N. L. Rogalina, M.A. Davydov, M.P. Kostyuk, N.A. Narochnitskaya, generally "Stolypintsev", "Monarchists", N.N. Bolkhovitinov, the latest developments of L.I. Borodkin; on foreign literature - review works by M. Malia, A. Graziosi, P. Gregory, indirectly - E. Carrer d 'Ancausse).

On the other hand, a directly opposite line was revealed - as it were, the revival of the "denationalizers" of the 1920s - ideas about the foreign origin of financial capital in Russia, the subsidiary status of Russian banking and industrial monopolies, and, ultimately, about the semi-colonial dependence of the Russian economy on Western powers (positions V.V. Polikarpov, N.T. Kudinova, I. Pantin and E. Plimak, V.P. Buldakov, A.V. Ostrovsky, A.I. Fursov; "slave-holding-feudal" formula of A. Milward and S. Soula, the "pre-industrial-semi-industrial" type of the Russian economy, according to M. Falcus - in general, a return to the formula of "backwardness" or the situation before "social historians").

At the same time, the current "promoters" and "demoters", in contrast to the "new trend", are questioning the regularity and prospects of the Bolshevik-Left Socialist-Revolutionary October, the origins of the Soviet era.

References

1. Chaadaev P. Ya. Essays. M., 1989. P. 21,25,26.

2. See the estimates for the beginning of the 2000s by: Konstantin Nikolaevich Tarnovsky. The Historian and His Time: Historiography. Memories. Research.– SPb., 2002; Shepeleva V.B. Historiographic fate of the "new direction" // World of the historian: XX century. M., 2002. P. 219–222, 232–233, 250–257.

3. I proceed from my own experience of communicating with colleagues. Although the VI volume of the still unfinished 12-volume book "History of the USSR since ancient times ...", of course, was available. The proposed by E. B. Zabolotny and V.D. Kamynin's interpretation of the modern historiography of the "new direction" (2004, pp. 50-57) raises questions about the alleged "idealization" of it "during the years of perestroika" and the subsequent "renaissance", if only due to the extremely weak dissemination of his conceptual developments among modern scientists.

4. See materials of all-Russian and international scientific conferences: "Russian

revolution in the context of history": Tomsk, November 6-8, 2007; Public History - Social Conflicts and Wars of the 19th and 20th Centuries: Models of Interpretation: Sofia, 11-12 November 2016; "Man in the 1917 Revolution: A View from the XXI Century", Omsk, September 21, 2017; "The era of socialist reconstruction: ideas, myths and programs of social transformations." Yekaterinburg, September 8-10, 2017; "Capital of revolutions". Moscow, October 4-6, 2017; "The Great Russian Revolution of 1917 is a turning point in the history of Yakutia, Russia and the world." Yakutsk, November 26-27, 2017; "Book and Revolution: Sixth Ryazanov Readings", October 28-30, 2020, Moscow. See materials of seminars and "Proceedings ..." 2006-2016. Center for Russian Studies, INION RAS; see historiographic texts with factual glitches, when among the "Ikapists" who did not fall under the repressions of the 1930s "are A. L. Sidorov (in fact," scorched "by the wave of repression), and even the veteran camp camp S. M. Dubrovsky (see: Gruzdinskaya V.S., Klyuev A.I., Metel O.V. Essays on the history of the institutional structure of Soviet historical science in the 1920s – 1930s. Omsk, 2018. - P. 78); other failures are repeated. And this is not to mention the conceptual system of "new directors".

5. See, in addition to theoretical and historiographic conclusions (Tarnovsky K.N. Socio-economic history of Russia. The beginning of the twentieth century. Soviet historiography of the mid-50s – early 60s. – M., 1990) his searches for the methodology of historiography: TsADKM F 157. Op. 1.D. 73, D.89, D.140, D. 151, D.459.

6. Academician P.V. Volobuev. Unpublished works. Memories. Articles. M., 2000. Socio-economic and political development of the Urals in the XIX - XXcenturies. To the 90th anniversary of the birth of V.V. Adamov: coll. of sci. articles. - Yekaterinburg, 2004; Konstantin Nikolaevich Tarnovsky. The historian and his time: historiography, memoirs, research: [to the 80th anniversary of the birth of K. N. Tarnovsky] – SPb., 2002.

7. See the interpretation of the essence of the "new direction": K.N. Tarnovsky. Socioeconomic history of Russia. – P.285-286.

8. In coll. art.: Russia and the World. In memory of Professor Valery Ivanovich Bovykin. M., 2001 - K.N. Tarnovsky is absent even in footnotes, absent even in historiographic (!) Texts.

9. Russia and the world. In memory of the professor ... P.14-15, 20, 52; Russia at the turn of the XIX - XX centuries. Mater scientific. readings in memory of prof. V.I. Bovykin. Moscow, January 20. 1999 M., 1999. P. 34-35; 74-75; 168.

10. See: Russia at the turn of the XIX - XX centuries ... P. 36, 79, 81- 82, 82, 180. Pupil V.I. Bovykina insists: "Valery Ivanovich has always been an example of a respectful attitude to the work of predecessors, no matter what views they advocated ..." (P. 180). The famous student emphasizes: "As a follower of her teacher ... V.I. Bovykin instilled in his pupils respect for the experience of predecessors ... taught a balanced approach to the works of his contemporaries, who looked at the process under study ... the historical fact differently." True, further the author refers in a positive way (P. 36-37) to the book by V.I. Bovykin "Russia on the Eve of Great Achievements. To the study of the socio-economic preconditions of the Great October Socialist Revolution " (Moscow, 1988), which is simply shocking with the degree of bias in relation to the "new direction" . See about this: V.A. Yemets, V.V. Shelokhaev. The creative path of K.N. Tarnovsky // Historical Notes. 1990, V. 118, p. 220; Volobuev P. V. Once again to the question of the "new direction" // Questions of history. 1990. № 6. P. 180-184.

11. Lomova S.A. Russia at the turn of the XIX - XX centuries. Mater ... P. 168, 173, 174..

12. "Co-teacher" of future"new directors". Ibid. P. 169

13. Researchers who preferred not academic, but extrascientific political and ideological attitudes.

14. Russia and the world. In memory of the professor ... P. 76-77; 79; 81-84.

15. Russia at the turn of the XIX - XX centuries ... P.84

16. Russia and the world. In memory of the professor ... P. 5; 22

17. Russia at the turn of the XIX - XX centuries ... P. 40-41. And all this against the background of, say, S.V. Voronkova expressed anxiety regarding the modern "denial ... and the very process of the development of historical knowledge as scientific", and with all the author's attention to the figure of A.L. Sidorov. Ibid. P. 32, 34-35.

18. Anfimov A.M., Gindin I.F., Tarnovsky K.N. Socio-economic preconditions for the revolution of 1905-1907. // History of the USSR from ancient times to the present day. - V. VI: Ch. 4; Anfimov A.M. The landlord economy of Russia during the First World War (before the February Revolution). M., 1962; Features of the agrarian system of Russia during the period of imperialism. M., 1962; Tarnovsky K.N. M. 1969.V.83. P. 196-221; Same author. The problem of interaction of socio-economic structures of imperialist Russia at the present stage of development of Soviet historical science // Questions of the history of capitalist Russia: The problem of multi-structure. Sverdlovsk, 1972.P. 14-46 et al.

19. Bovykin V.I. Russia on the eve of great achievements. – P. 33,34, 35, 70-71, 106.

20. Ibid. P. 7,17-18,26-36, 49 68 70-71 118-119.

21. Ibid. P. 30

22. Ibid. P. 39, 48.

23. Ibid. P.119; Tarnovsky K.N. Socio-economic history of Russia. – P.114-115.

24. Lenin V.I. Revision of the agrarian program of the workers' party // Ibid. V. 12. P. 239–270; Same author. The agrarian program of social democracy in the first Russian revolution of 1905-1907 // Ibid. V. 16. P. 268–269.

25. Bovykin V.I. Russia on the eve of great achievements ... P. 29, 32, 33, 34.

26. Ibid. P. 29-30. Revealing the position of I.V. Stalin, see: Shepeleva V.B. "Soviet project" in the context of modern theoretical, methodological and historiographic searches. Omsk, 2019. P.99, 118-119, 139-140, 165.

27. Shepeleva V.B. "New direction" in the Soviet historiography of the socio-economic history of Russia at the end of the XIX- beginning of the XX century // Dialogue with time: almanac. M., 2003. Iss. 10.P. 300-310; Same author. The problem of the revolutionary democratic alternative in Russia in 1917-1920. (questions of theory, methodology, historiography): dis. ... doct. hist. sciences. - Tyumen, 2013. – Ch. 4; P. 493-497.

28. True, in the memoirs of the Bovykinites it is mentioned that the teacher "for a long time was forced to mask his scientific interest in the problem of financial capital by studying the material prerequisites of the October Revolution" ... (Russia and the world. In memory of the professor ... P. 23)

29. Tarnovsky K.N. Socio-economic history of Russia. – P.123-124; 126-127.

30. Bovykin V.I. Russia on the eve of great achievements ... P. 32-34, 68,101.

31. Ibid. P.52, 54-57, 99, 143-144 et al.

32. Ibid. 62-67, 69, 81, 82-84, 89, 97, 125.

33. Ibid. P. 97 98 99 101-102, 104-109, 111-112.

34. Ibid. P. 109-110. An equally extra-academic method was used in the case of an ambiguous link by the author M.Ya. Gefter with an anti-cosmopolitan campaign. A figure of silence in a number of cases on the facts of the real contribution of A.L. Sidorov's development of a common theme only aggravates the described situation.

35. Ibid. P. 111, 125, 142 - 143.

36. Bovykin V.I.. The era of capitalism (1861–1917) in the works of Soviet historians // New in Soviet historical science. – M., 1988; Same author. Russia on the eve of great achievements. P. 149; Haymson L. Collaboration with V.I. Bovykin // Russia and the world. In memory of the professor ... P. 77.

37. Milan Congress of Economic History and Our Historical and Economic Science // Economic History. Review. M., 1996. Iss.1.

38. Bovykin V.I. Financial capital in Russia on the eve of the First World War. – M., 2001. – P. 7–56

39. Despite the fact that "this is indicated not only by Soviet, but also by numerous Western researchers" - this is the whole argumentation of this position. And once again the described situation testifies: the agrarian-peasant revolution, the basis of the democratic revolution of the masses, does not exist for the author. - Ibid. P. 16

40. Bovykin V.I. Financial capital in Russia. P. 20, 22.

41. Selunskaya N.B. The concept of the agrarian system of Russia in the post-reform era // Historical notes. V. 120. M., 1999. P. 187–206; Milov L.V., Selunskaya N.B. Ivan Dmitrievich Kovalchenko. On the occasion of the 80th anniversary of his birth // Kovalchenko I. D. Agrarian system of Russia in the second half of the XIX - early XX century. M., 2004. P. 13–25; Milov L.V. The creative path of Academician I.D. Kovalchenko // Ibid. P. 26-56.

42. Ibid. P. 27.

43. Iskenderov A.A. Russian monarchy, reforms and revolution // Questions of history. – 1993, 1994, 1999. – № 3,5,7; – № 1,6; – № 1, 3,9,11; Bokhanov A.N. Big bourgeoisie of Russia (late XIX century — 1914) – M., 1992; Rogalina N.L. Agrarian reforms in Russia in the 10–20s (Historical and Comparative Analysis) // Russia in the XX century: Reforms and revolutions: in 2 V. – V. 1. – M., 2002. – P. 543–563; Narochnitskava N.A. Russia and Russians in world history. – M, 2003; Bolkhovitinov N.N. Russian scientists-emigrants / G.V. Vernadsky, M.M. Karpovich, M.T. Florinsky / and the formation of Russian studies in the USA. M., 2005. P.59-60; Mironov B.N. The welfare of the population and revolutions in imperial Russia. M., 2010; Davydov M.A. All-Russian market at the end of the XIX beginning of the XX century and railway statistics. SPb., 2010; Malia M. In search of true October (Reflections on Soviet history, Western Sovietology and a new book by Richard Pipes) // National history.. – 1992. – № 4. – P. 178-187; Same author. From under the boulders, but what? Essay on the history of Western Sovietology // Russian history. - 1997. $-N_{2}$ 5. – P. 93-109; Graziosi A. The Great Peasant War in the USSR. Bolsheviks and peasants. 1918-1933. M., 2001; Carrer d'Encausse E. Nicholas II: Executed Succession // Autocracy in the History of Russia: coll. of ref. - M., 2013. - P.286-298.

44. See: Tarnovsky K. N. Socio-economic history of Russia. – P.14-21.

45. See.: Pantin I., Plimak E. The drama of Russian reforms and revolutions (comparative political analysis). M., 2000. P. 9–27; Kudinova N.T. Domestic historiography of the 1917 revolution in Russia (1917–1995). Khabarovsk, 1998; Polikarpov V.V. Power and Navy in Russia in 1905-1909 // Questions of History. 2000. N_{2} 3. P. 32–48; See also: Bovykin V. I. Financial capital in Russia. Foreword.

Scientific research of the SCO countries: synergy and integration

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在十九世纪下半叶和二十世纪初,俄罗斯乌拉尔中部人口的政治家身份得 到了辩证法

DIALECTICS OF THE POTESTAR (POLITICAL) IDENTITY OF THE RUSSIAN POPULATION OF THE MIDDLE URALS IN THE SECOND HALF OF THE XIX AND EARLY XX CENTURIES

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本文探讨了十九世纪下半叶至二十世纪初,关于俄罗斯人民在乌拉尔中 部力量的观点相互矛盾的问题。 给出了主要来源的分析。 这里的矛盾不 是一般地以权力观念的本质来解释的,而是由于包括世界观在内的现代化 进程的结果。

关键字。 诗意(政治)意识,现代化,辩证法。

Abstract. This article examines the question of the contradictory nature of the views on the power of the Russian people in the Middle Urals in the second half of the XIX - early XX centuries. An analysis of the main sources is given. The contradiction here is explained not by the very essence of the perception of power in general, but as a result of modernization processes, including in the worldview.

Keywords. Potestary (political) consciousness, modernization, dialectics.

As a rule, the term "potestarnoe" (from Lat. Potestas - power) is used in relation to the primitive, undeveloped form of consciousness of participants in political life, as something pre-state, pre-class. At the same time, when it comes to the modernization of traditional societies, one of the objects of modernization arises - the potestary consciousness [7]. Classically, modernization is understood as a transition from an agrarian (traditional) society to an industrial (modern) one.

A higher stage of development of consciousness is political, characteristic of a class society with a developed state and the presence of a civil society (at least in some of its manifestations). Institutions of power reveal themselves everywhere, starting with the family, clan, tribe. In the process of development of society, they are transformed, the state and state power appear. This, in turn, is reflected in the new - state features of public consciousness. For example, ideas about the small

and large Motherland, the need to protect the borders appear, and the idea of the Fatherland is bypassed. All this is expressed in ideas about the unity of a territory united by political power. The most striking illustration is the defense of Moscow in 1941, where not only Russians from the Center of Russia, Siberia, and the Urals fought shoulder to shoulder, but representatives of many nationalities of the Soviet Union. Undoubtedly, this example points to a fully developed political consciousness of the broad masses of the people who gave their lives for Moscow, as for their small homeland, as for their home.

At the same time, it would be wrong to assert that even with the completion of modernization processes, the potestary consciousness mentioned here completely disappears. The state in Russia has existed since the IX century. Since then, the exploits of not only the princely squads, but also the common people, are widely known, as every schoolchild knows about. And these feats cannot be interpreted otherwise than a manifestation of political consciousness: the heroes sacrificed their lives for the great Motherland, for the state. At the same time, undoubtedly, the society was traditional, patriarchal, peasant in its mass.

The time of modernization in Russia can be dated in different ways. However, a number of researchers attribute the beginning of these processes to the time of Peter the Great, recognizing, of course, that it was only the beginning, that it mainly affected the upper circles of society and had an "imperial" character. Further - the next stage of modernization from the Great reforms of Alexander II with a derivative in the form of urbanization, building a large industry, changing the way of life and consciousness of the people. However, even the pre-revolutionary stage cannot be considered complete. The Bolsheviks had to finish [5, 89-111].

It is no coincidence that here we had to linger a little on the canvas of modernization in Russia. This illustration shows that the transition period took a very long time - over two centuries. That is, for at least two hundred years, potestary and political consciousness coexisted in Russian society and were opposed to each other, which is the dialectic of the question posed.

In addition, it is obvious that political consciousness, as a higher one, does not cancel, does not completely destroy the potestary, but includes it, adapts, transforms it. In any community (family, work collective, friendly company, temporary group) there are leaders, there are elements of power, but this, of course, is not a state phenomenon, not political power. And it's not exactly power, but something powerful, potestary. Also, the ideas about the power of the population of the Middle Urals in the second half of the XIX - beginning of the XX centuries can hardly be called political in the full sense of the word, rather, they are test-based, since modernization, even in its material component, was not completed, did not embrace society as a whole. Even after the Great Reforms and the rapid development of industry and cities by 1917, Russia remained predominantly an agrarian country, i.e. traditional [8].

Predominantly here means not completely, for the most part. While in part it is already an industrial country. Therefore, the consciousness in this article is designated as potestary, referring to the topic of power in general, despite the fact that it is still mostly traditional, but on the way to industrial. All this means that public consciousness, in particular in the political context, is of a dual nature.

Let us turn to the sources that can be used to judge the content of potestary consciousness in the Middle Urals in the second half of the XIX - early XX centuries. And briefly about them. Of course, I am reconstructing the potestary consciousness of 100-150 years ago, one should look for such statements that directly tell about the attitude to power. The first corpus of sources - folklore material, by the way, is far from all still published, located in the Russian Ethnographic Museum (REM), the Russian State Historical Archive (RSHA), the Russian Geographical Society (RGS), the State Archive of the Perm Krai, the State Archive of the Sverdlovsk Oblast (SASO). These are the collections of such researchers as V.S. Verkholantsev, Volegovykh, A.N. Zyryanova, V.P. Biryukova, L.M. Khandros, historians V.N. Shishonko and A.A. Dmitriev, or, for example, the personal fund of Stepan Lyalin (Cherdyn Museum of Local Lore). Among the well-known published materials of oral folk art - "Traditions and Legends of the Urals", recorded by the folklore expedition of the Ural State University under the leadership of V.P. Kruglyashova; "Satire and humor in the pre-revolutionary folklore of the workers of the Urals" edited by V.V. Bliss; collection of "Legends of the Chusovaya River" and others [9; p. 31-32].

A separate group of sources was made up of materials from periodicals. Many historical events of all-Russian and regional significance were reflected in "Permskiye gubernskiye vedomosti" and "Permskiye eparchialnye vedomosti", which, of course, were covered from an official position. They contain collective messages to the sovereigns (addresses), open letters, descriptions of celebrations and mass services. They published the works of local writers and poets, as a rule, on patriotic themes, which acts as an important source for the study of the political consciousness of at least part of the people, conventionally - the intelligentsia.

For objectivity, it is necessary to consider the opposition press (here and the liberal sense, and socialist, and ultra-right editions): "Yekaterinburg week", "Yekaterinburg newspaper", "Voice of the Ural", "Voice of Dolga", "Trans-Urals", "Trans-Urals Territory "," Iset ".

Important published sources for the study of the spiritual culture of the Ural population are the published notes of travelers, memoirs, letters and fiction. The first place among these sources should rightfully be given to V.I. Nemirovich-Danchenko, the brother of the famous director, V. I. Nemirovich-Danchenko visited our region in 1876, as a result of which the book "Kama and Ural" appeared. This book is valuable not only for factual material, but also for the huge number of dialogues between the author and representatives of the common people. The book of V.I. Nemirovich-Danchenko is filled with statements of people of different ranks in expanded form about specific historical events and personalities, as well as folk-lore texts heard by the traveler along the Kama, Chusovaya, Sylva and in mining villages.

It is possible to single out such works as V.N. Berkha "Travels to the city of Cherdyn and Solikamsk for the search for historical antiquities", D. Petukhov "The mountain town of Dedyukhin and roundabout places", travel notes by A. I. Herzen, D. N. Mamin-Sibiryak "From the Urals to Moscow", N. D. Teleshova "For the Urals" and N.P. Beldytsky "In Parma", etc.

And finally, important information (not only statements about power, but specific actions) can be gleaned again from archival sources. These are funds of state administration bodies: the Perm provincial government, the Office of the Perm governor, funds of the police, gendarmerie, courts, as well as funds of the administration of the Perm diocese.

The more you have to delve into the content of the sources, the more, at least in the first couples, you are surprised at their inconsistency: on the one hand, the Russian peasants and the factory population are patriarchal, they love the tsar -God's anointed one, they venerate different levels of authority, starting from the head of a large family and until five to the sovereign father. On the other hand, we see the growth of the revolutionary movement, mass protests, riots, strikes. Traces of this, of course, are present in the vast amount of collected material. And it would be naive, knowing the history of that era, to talk about only one side of social consciousness. Both opposite forms existed simultaneously [9; p. 99-141].

An interesting example can be given. In February 1905, one police officer wrote to the bailiff of the 4th camp of the Krasnoufimsky district of the Perm province that a certain peasant A.V. Bazhin told other peasants: "We all signed up to kill the Emperor" [1]. However, in contrast to the above words of the peasant about his readiness to kill the tsar, one can cite the text of the address compiled in the same 1905 not so far from the Krasnoufimsky district - in the Kamyshlovsky district of the Perm province. In connection with the war against Japan on July 12, 1905, the volost gathering decided: "In view of the difficult time experienced by our Fatherland, not wanting to remain a silent accomplice of all, allegedly on behalf of our acting, unrecognized well-wishers, they decided to cast down at the feet of His Imperial Majesty, our beloved Sovereign, feelings of boundless devotion to our Throne and love for the Fatherland and deep conviction that with God's help, the Motherland will emerge with honor from the temporary trials prepared by our external and diligently supported by internal enemies of peace and tranquility, if only our government, relying on the whole truly Orthodox Russian people, showed due firmness in their actions on the issues of war and peace and would have relieved us of the offensive newspaper desires of a speedy conclusion of a shameful world for us, as proof of the sincerity of our feelings, they decided to donate 500 rubles from worldly fees at a time to the revival of the navy ... " [4].

At the same time, let's not forget about the real attempts on the life of Alexander II up to his murder. At the same time, he himself, in a conversation with the Prussian ambassador O. Bismarck, held on November 10, 1861, said: "Throughout the country, the people see in the monarch the messenger of God, the fatherly and all-powerful master" [10; 413]. Indeed, the Emperor Alexander II the Liberator had reason to say so: he received numerous addresses (messages) from the people expressing love and loyal feelings (after the attempt on the life of the emperor in 1879, at least 83 messages were received from the Ural peasantry alone) [6, 105].

These extremes, perhaps, are not so much confirmation of the famous Berdyaev antinomies (one of them is the thesis that the Russian people are the most law-abiding before the tsar and at the same time the Russian people are the most anarchist), as the Hegelian dialectical movement - the development of one form of consciousness to another: from traditional to modern. During the Russo-Japanese War, apart from the well-known protests, the Russian people at the same time did not remain indifferent to the issues of saving the Motherland and supporting the monarchy.

The peasants of the Kolchedan volost of the Kamyshlov district, in addition to assurances of loyal feelings, tried to prove to the authorities that such messages came from them, and not from some figureheads. On July 12, 1905, the volost gathering decided: "In view of the difficult time experienced by our Fatherland, not wishing to remain a silent partner of all, ostensibly on behalf of our acting, unrecognized well-wishers, they decided to plunge at the feet of His Imperial Majesty, our beloved Sovereign, feelings of boundless devotion to our To the throne and love for the Fatherland and deep conviction that with God's help, the Motherland will emerge with honor from the temporary trials prepared by our external and diligently supported by internal enemies of peace and tranquility, if only our government, relying on the entire truly Orthodox Russian people, would show due firmness in our actions on the issues of war and peace, and would have saved us from the offensive newspaper desires of a quick conclusion of a shameful world for us, as proof of the sincerity of our feelings, they decided to donate 500 rubles from worldly fees at a time to the revival of the navy ..." [4].

What is noteworthy, the peasants, while expressing loyal feelings, observing all the norms of the then political etiquette, also collected a rather large sum. You can see monarchical fanaticism in this, or you can see the emergence of civil positions: the subjects are no longer a herd with a shepherd, but a force that requires continuing military operations, and even collects funds for this!

And now closer to 1917 there are more and more disappointments among the

people, more thoughts about their own role, about the injustice of the authorities. The potestary image of the king-father is gradually changing the image of the king as a high official. During the revolutionary upheavals, the Russian people expressed their attitude to the unrighteous, bureaucratic power:

We don't want to serve a bureaucrat

Enough with the obedience to him, a scoundrel,

Enough with the obedience to the damned villains

And to the king, a figurehead [2].

In this case, the epithet "figurehead" indicates the discrepancy between the image of the monarch and popular aspirations. Fake, unrighteous, and finally, a figurehead - all these definitions refer to the tsar "bureaucratic", bureaucratic, state. The opposite of such a ruler is the "peasant" tsar, the tsar-father, who in the minds of the peasantry easily correlated with the concepts of a good owner, homeowner, and highway. The Ural workers, it seems, sang about the same, recalling the time of the Pugachev uprising:

They scared us with Pugach, -

He was feeding us kalach,

The sovereign beat us from the shoulder

Pugach gave us kalach [3].

Here are just a few examples of such a contradictory attitude towards power. Once again, it should be emphasized that, although contradictions in the views on the supreme power are currently the norm, in this period there is more likely a movement (development) of potestary consciousness towards the political within the framework of modernization theory. The number of negative statements in various sources against the king has been constantly growing since the end of the XIX century. By the way, everyone knows the sad consequences of this process.

References

1. Perm Security Department of the Ministry of Internal Affairs. GAPK. F.160, Op.1, D.55., L.17.

2. Personal fund of V.P. Biryukova. SASO. F. p-2266, Op.1, D.84, L.29.

3. Personal fund of V.P. Biryukova. SASO. F. p-2266, Op.1, D.84, L.11.

4. Chronicle // Perm Provincial Gazette. 1905. №165.

References

5. Gavrov S. N. Modernization for the sake of empire. Socio-cultural aspects of modernization processes in Russia. — M.: Editorial URSS, 2004. — 352 P.

6. Kiryanov. I.K. The political culture of the Russian peasantry in the period of capitalism (based on the Ural materials) // Public and cultural life of the pre-revolutionary Urals. Perm, 1990.

7. Political science: dictionary-reference. — M.: Gardariki. M. A. Vasilik, M. S. Vershinin and others. 2001.

8. Strumilin S.G. Essays on the economic history of Russia. M.1960, P. 507.

9. Telenkov A.V. National identity of Russians in the late XIX – early XX century (based on materials from the Middle Urals)

10. Shumilov M.M. Russian autocracy in the second half of the XIX century // History of Russia: people and power. SPb., 2001.

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马克思的革命理论 K. MARX¢S THEORY OF REVOLUTION

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马克思的革命观是基于他对整个人类历史的解释。根据他的教导,社 会的发展伴随着周期性的阶级冲突,这种冲突不断升级,导致革命性的变 化。阶级斗争是由任何社会固有的无法解决的矛盾引起的。矛盾的根源在 于生产力的经济变化。在一个相对稳定的社会中,经济结构,社会关系和 政治制度之间是平衡的。随着生产力的变化,矛盾加剧,导致阶级的公开 冲突,最终导致革命。

卡尔·马克思将这种模式应用于以前的封建时代,以及他如何预见了工 业资本主义的未来发展(一种基于对个人利益的追求以及企业之间对销售 商品的权利的竞争的经济秩序)。这种制度在控制工业资源的富裕少数族 裔和大多数处于不利地位的工薪族之间造成了裂痕。最后,旧的封建制与 新的资本主义经济之间的矛盾激化了,以新生的资本主义阶级与封建地主 之间的不可调和的冲突的形式出现。这一过程导致了革命,其中最重要的 是1789年的法国革命。马克思认为,由于欧洲国家发生了类似的革命和革 命性变化,资本家阶级得以上台。资本主义的到来造成了新的矛盾,这些 矛盾最终将导致受到社会主义和共产主义理想启发的下一轮革命。

作者得出以下结论:

1. 马克思提出的革命理论,不仅具有科学价值,而且塑造了二十世纪发生的真正的革命过程。多数西方国家(美国除外)都有认为自己是社会主义或共产主义的政党。

2. 社会发展的根源是对立的社会阶级之间的斗争。根据马克思,社会被 划分为拥有不平等资源的阶级。由于存在严重的不平等,因此存在利益差 异,这被证明是"内置于"社会系统中的。利益冲突有时会变成阶级之间 的积极斗争,这可能引起根本性(革命性)变化。

3. 唯物史观看到了人类与物质环境互动中社会变革的根源。一个人的特征是对世界的积极态度,管理世界并将其服从于自己的目标的愿望。马克思认为,理解社会变化的关键是人们用来创建越来越复杂和完善的生产系统的方式。马克思将这一过程描述为生产力的增长。生产力的变化在上层

建筑的机构中引起了紧张关系,而这些紧张关系越强烈,就越需要对社会进行全面而全面的变革。阶级斗争变得越来越尖锐,最终导致现有机构的 瓦解,或者导致通过政治革命向新的社会秩序的过渡。

4. 马克思在世界历史上第一次将无产阶级人民群众视为历史进步的动力。社会变革不仅可以作为逐步发展的过程发生,而且可以作为革命性的动荡发生。在生产力和其他制度逐步改组的时期之后,是革命性突变的阶段。

作者认为有必要强调指出,马克思的革命理论作为分析社会变迁的一般 方法具有很大的局限性。没有任何"单因素"理论(K.马克思夸大了纯粹 的经济因素在变革中发挥的作用)无法解释所有的社会变革。通常,会发 现许多影响社会变革并引发革命的最重要的政治,军事和文化因素。社会 主义制度是否必然取代资本主义仍存在争议。

关键词:政治革命,社会革命,社会变革,阶级对抗,历史唯物主义,工业民主。

Abstract. Marx's view of revolution is based on his interpretation of human history as a whole. According to his teachings, the development of society is accompanied by periodic class conflicts, which, escalating, lead to revolutionary changes. The class struggle is generated by the insoluble contradictions inherent in any society. The source of the contradictions lies in economic changes in the productive forces. In a relatively stable society, there is a balance between economic structure, social relations and the political system. With a change in the productive forces, contradictions grow, which leads to an open clash of classes and, ultimately, to revolution.

Karl Marx applied this model to the previous feudal era and to how he foresaw the future development of industrial capitalism (an economic order based on the pursuit of personal profit and competition between firms for the right to sell their goods). Such a system creates a rift between a wealthy minority that controls industrial resources and a disadvantaged majority of wage earners. Finally, the contradictions between the old feudal and new capitalist economies intensified so much that they took the form of irreconcilable conflicts between the nascent capitalist class and the feudal landowners. This process resulted in revolutions, the most important of which was the French Revolution of 1789. K. Marx argued that as a result of similar revolutions and revolutionary changes that took place in European countries, the capitalist class managed to come to power. The arrival of capitalism creates new contradictions that will eventually lead to the next series of revolutions inspired by the ideals of socialism and communism.

The author came to the following conclusions:

1. The theory of revolution, developed by K. Marx, not only has scientific value, but also shaped the real revolutionary processes that took place in the XX century. Most Western countries (with the exception of the United States) have political parties that consider themselves to be socialist or communist. 2. The source of the development of society is the struggle between antagonistic social classes. According to K. Marx, societies are divided into classes that own unequal resources. Since there is a strong inequality, there is a difference of interests, which turns out to be "built in" into the social system. Conflicts of interest at some point turn into active struggle between classes, which can give rise to a process of radical (revolutionary) change.

3. Historical materialism sees the roots of social change in human interaction with the material environment. A person is characterized by an active attitude to the world, the desire to manage it and subordinate it to his goals. The key to understanding social changes, Karl Marx argued, are the ways people use to create more and more complex and perfect production systems. K. Marx described this process as the growth of productive forces. Changes in the productive forces cause tensions in the institutions of the superstructure, and the stronger these tensions, the more urgent the need for a complete and comprehensive transformation of society. The class struggle becomes more and more acute and leads in the end either to the disintegration of existing institutions, or to a transition to a new social order through a political revolution.

4. K. Marx, for the first time in world history, considered the masses of the people, the proletariat as the engine of historical progress. Social changes can occur not only as processes of gradual development, but also as revolutionary upheavals. Periods of gradual restructuring of productive forces and other institutions are followed by phases of abrupt revolutionary transformations.

The author considers it necessary to emphasize that K. Marx's theory of revolution as a general approach to the analysis of social changes has significant limitations. No "one-factor" theory (K. Marx exaggerated the role that purely economic factors played in the changes) can explain all social changes. Typically, a number of the most important political, military and cultural factors are identified that influence social change and lead to revolutions. It remains controversial whether the socialist system will necessarily replace capitalism.

Keywords: political revolution, social revolution, social change, class antagonism, historical materialism, industrial democracy.

K. Marx was born in Germany in 1818, but spent most of his life in Great Britain, where his main works were created. He could not devote himself to a university career, since in his youth his political activities led to a conflict with the German authorities. After a short stay in France, he settled in Britain. Most of his works are devoted to economic topics, but since he has always sought to connect economic problems with social institutions, his work is deep in sociological, philosophical, political terms.

Many theories are devoted to the description of revolutions, which is not sur-

prising given the important role they have played in world history over the past two hundred years. Chalmers Johnson's theory of political violence, James Davis's concept of linking revolution to rising economic expectations, and, finally, Charles Tilly's interpretation of collective protest.

In this article we will consider the theory of revolution by Karl Marx, which concerned not only the analysis of the conditions leading to revolutionary transformations, but also showed the ways how to promote these transformations. Whatever their independent value, the ideas of Karl Marx had a tremendous impact on the changes that took place in the twentieth century.

Karl Marx's point of view is based on what he called the materialistic understanding of history: the source of social change is not the ideas and values that people adhere to, but economic reasons. They, in turn, are associated with class conflicts, which are the driving force behind the development of history. To put it in the words of K. Marx, all human history is the history of the class struggle, since it inevitably leads to a social revolution and the transition to a new social order" [4, p. 419-459]. For Karl Marx, a class is a group of people who have the same attitude to the means of production, with the help of which they ensure their existence. The relationship between classes is exploitative and antagonistic in nature. In addition to the two main classes, there are so-called transition classes. These are class groups that have survived from previous production systems and that may exist long after the old systems have disintegrated. Karl Marx pays much attention to stratification within classes. Some examples of this layering include:

Among the upper class, a conflict often arises between financial capital (bankers) and industrialists

The interests of small businesses and owners or managers of large corporations also differ significantly. Both belong to the capitalist class, but policies pursued in the interests of big business are not always beneficial to small ones.

Within the working class there are people who have remained unemployed for a long time, and their living conditions are much worse than those of most other workers. Typically, these groups are composed mainly of ethnic minorities.

Karl Marx's concept of class indicates economic inequality, which is an objective factor in the social order. Class affiliation is determined not by people's perception of their social position, but by objective conditions that allow some groups to receive preferential access to material benefits over others.

The most important changes for Karl Marx were those associated with the development of capitalism, which is a system of production of goods and services for sale to a wide range of consumers. The owners of capital - factories, machines, and large sums of money - form the ruling class. The bulk of the population is the class of wage workers, or the working class, which does not have its own means of subsistence, but must be hired to work for the owners of capital. Capitalism is

thus a class system in which conflict between classes is pervasive.

According to K. Marx, capitalism in the future will be superseded by socialism or communism, and socialist society will be classless. In his work "Criticism of the Gotha Program" K. Marx specified that a classless communist society is preceded by a class-non-antagonistic socialist society, which he considered as the first phase of communism. [1]. In his letter to I. Weidemeyer dated 05.03. In 1852, K. Marx wrote "What I did new was to prove the following: 1. That the existence of classes is connected only with certain historical phases of the development of production; 2. That the class struggle necessarily leads to the dictatorship of the proletariat; 3. That this dictatorship itself is only a transition to the destruction of all classes and to a society without classes" [2, p. 427].

In our opinion, Karl Marx did not mean the complete disappearance of differences between individuals, rather he said that the split of society into a small class, monopolizing economic and political power, and a mass of workers who have practically nothing from the social wealth created by their efforts are disappearing. The new economic system will be dominated by public ownership and a more egalitarian and participatory social order will be established.

K. Marx believed that the study of the development and possibilities of capitalism should indicate the means for its active transformation through the use of political action. Even in the work "Theses on Feuerbach" we find the credo of Karl Marx "philosophers only explained the world in different ways, but the point is to change it" [3, p. 4]. Therefore, the philosophical observations of K. Marx were closely related to his political program, which had an extremely strong impact on the entire twentieth century. More than a third of the world's population belonged to societies whose governments claimed to be inspired by the ideas of Karl Marx.

K. Marx was one of the first authors to realize that the division of labor alienates people from their work: industrial workers have practically no influence on the nature of the tasks performed, contributing only a small part to the process of making a whole product, and cannot at all affect who and how it is ultimately sold. Work thus becomes something *alien*, a task that the worker must complete in order to receive a reward, but which inherently does not appeal to them at all.

K. Marx sees the main contradiction in the very idea of modern society. On the one hand, the development of industry creates extraordinary wealth, far more than in any previous type of society. On the other hand, the vast mass of people whose work is a source of wealth are deprived of any real control over the work performed.

What constitutes the alienation of labor? "Firstly, work is external to the worker, is not part of his nature, and, therefore, he does not realize himself in it, but denies, while experiencing a feeling of humiliation, not satisfaction, does not develop his spiritual and physical strength, but turns out to be physically exhausted and spiritually devastated. The worker, therefore, feels comfortable only during leisure hours, while at work he feels homeless. Secondly, his work is not voluntary, but tortured, bonded labor. It is not the satisfaction of a fundamental human need, but only becomes a means for the satisfaction of other needs. The alienated nature of work is immediately apparent in the fact that as soon as physical or other compulsion disappears, it runs like the plague. We come to the conclusion that a man (worker) feels free only in his animal functions, such as eating, drinking and reproduction, and also when he is in his dwelling and decorates himself, while in his human functions he is brought down to the animal. An animal becomes a man, and a man turns into an animal" [6, p. 124-125].

For Marx, alienation is associated not only with feelings of indifference or hostility to work, but also expressed in the fact that workers do not have actual control over their working conditions.

The workers and capitalists are entering an ever-escalating conflict. Ultimately, workers' movements and political parties representing the interests of the working masses challenge the power of the capitalists and overthrow the existing political system. If the positions of the dominant class are especially strong, then violence should be used to bring about the necessary changes, according to K. Marx. "Let the ruling classes shudder before the Communist revolution. The proletarians have nothing to lose in it except their chains. They will gain the whole world ... Workers of all countries, unite!" [4, p. 459]. Under other circumstances, the process of transfer of power can take place peacefully, through a parliamentary action, and a revolution will not be needed.

In the XIX century, Karl Marx pointed out that the right of citizens to participate in political life ends at the factory gates. Political democracy, he believed, should be complemented by democratic rights in industry. Self-government is one of the principles of modern German industry, whose workers have the right to choose directors, they have their own voice in deciding questions about the personnel of enterprises.

There is strong evidence that morale and productivity are high in organizations where workers influence decision-making. In one of the earliest analyzes of industrial democracy systems, which described seventeen experiments, Paul Blamberg concluded that "increased worker participation in decision-making creates a sense of job satisfaction and other beneficial effects. Thus, a study of the experience of cooperatives in the production of plywood in the north of the West Coast of the United States showed that firms with a cooperative system are 30-50% more efficient than traditional companies of the same size working in this area"[5, p. 123].

However, the capitalists in Germany did not support K. Marx's proposal to introduce the ideas of industrial democracy (self-government, organizing trade unions at enterprises, attracting the proletariat to joint ownership of the means of

production) to solve the problem of alienation by peaceful means. In the "Manifesto of the Communist Party" K. Marx and F. Engels note: "the lever of a social revolution is the political revolution, as a result of which political power will pass into the hands of the proletariat. The proletariat uses its political domination in order to wrest from the bourgeoisie step by step all capital, to centralize all the instruments of production in the hands of the state, i.e. the proletariat, organized as a state class, and as quickly as possible to increase the sum of the productive forces. This can happen at first only with the help of despotic interference in property rights and in bourgeois production relations, which ... are inevitable as a means for a revolution in the entire mode of production" [4, p. 446]. It turns out that the political struggle was viewed by K. Marx as a means to achieve the economic freedom of the proletariat, and was imputed to him as a duty. "If the proletariat in the struggle against the bourgeoisie invariably unites into a class, if by means of revolution it transforms itself into the ruling class and ... by force abolishes the old relations of production, then together with them it abolishes the conditions for the existence of the class opposition, abolishes classes in general, and thus also its own domination as a class. The old bourgeois society with its classes and class opposites is replaced by an association in which the free development of everyone is a condition for the free development of all." [4, p. 447].

K. Marx expected that revolutions in some Western countries might take place during his lifetime. Later, when it became clear that this would not happen, he turned his attention to other regions, in particular, Russia. He wrote that the revolution will be successful only if it spreads to other Western countries. Under this condition, the revolutionary government of Russia will be able to use the developed economy of Europe and ensure rapid modernization in the country.

Based on the above, we can draw a number of conclusions:

The theory of revolution, developed by K. Marx, not only has scientific value, but also shaped the real revolutionary processes that took place in the XX century.

The source of the development of society is the struggle between antagonistic social classes. According to K. Marx, societies are divided into classes that own unequal resources. Since there is a strong inequality, there is a difference of interests, which turns out to be "built" into the social system. Conflicts of interest at some point turn into active struggle between classes, which can give rise to a process of radical (revolutionary) change.

Historical materialism sees the roots of social change in the interaction of man with the material environment. A person is characterized by an active attitude to the world, the desire to manage it and subordinate it to his goals. The key to understanding social changes, Karl Marx argued, are the ways people use to create more and more complex and perfect production systems. K. Marx describes this process as the growth of productive forces. The changes taking place in the productive forces cause tensions in the institutions of the superstructure, and the stronger these tensions are, the more urgent is the need for a complete and comprehensive transformation of society. The class struggle becomes more and more acute and leads in the end either to the disintegration of existing institutions, or to a transition to a new social order through a political revolution.

K. Marx, for the first time in world history, considered the masses of the people, the proletariat as the engine of historical progress. Social changes can occur not only as processes of gradual development, but also as revolutionary upheavals.

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References

1. Marx K. Criticism of the Gotha program // K. Marx and F. Engels. – Op. 2nd ed. – M.: State publishing house of political literature. – 1961. – V. 19. – P. 9–32 (670 P).

2. Marx K. Letter to I. Weidemeyer dated 05.03. 1852 // K. Marx and F. Engels. Compositions. 2nd ed. – M.: State publishing house of political literature. – 1962. – V. 28. – P. 422–428 (767 P).

3. Marx K. Theses on Feuerbach // K. Marx and F. Engels. Compositions. 2nd ed. – M.: State publishing house of political literature. – 1955. – V. 3. – P. 1–4 (629 P).

4. Marx K., Engels F. Communist Manifesto / K. Marx and F. Engels. Compositions. 2nd ed. – M.: State publishing house of political literature. – 1955. – V. 4. – P. 419–459 (615 P).

5. Blumberg P. Industrial democracy: the sociology of participation / P. Blumberg. – London: Scribners. – 1968. – 254 P.

6. Marx K. Alienated labour // Karl Marx: early writings. – Hannondsworth: Harper and row Publishers. – 1963. – 486 P.

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当代地缘政治进程中的混合行动 HYBRID OPERATIONS IN CONTEMPORARY GEOPOLITICAL PROCESSES

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本文使用地缘政治理论的方法论工具,探讨了现代地缘政治过程中混合 行动的性质和内容。 混合操作与颜色革命之间存在联系,并提出了可能的 地缘政治场景。

关键词: 地缘政治理论地缘政治过程混合战争混合作战颜色革命

Abstract. The paper, using the methodological tools of geopolitical theory, discusses the nature and content of hybrid operations in modern geopolitical processes. There is a link between hybrid operations and color revolutions, and possible geopolitical scenarios are proposed.

Keywords: geopolitical theory, geopolitical processes, hybrid warfare, hybrid operations, color revolutions.

In the XXI century, while maintaining the general trend towards a decrease in the likelihood of a global armed conflict, there is an increase in the conflict potential of individual regions and, as a result, the exacerbation of old contradictions occurs, and new centers of regional confrontation appear. The desire of the United States and its individual allies to establish a unipolar world order, the threat of their use of military force against sovereign states bypassing the UN Security Council, appropriating the right to interfere in the internal affairs of other countries and claims to monopolize the functions of resolving international conflicts of varying intensity radically change the system of international relations.

Nowadays, there is a steady interest in geopolitics in the scientific and political circles of various countries. The reason for this lies in those dramatic changes on the political map of the world that have taken place over the past few years. However, in modern political and reference literature, the concept of geopolitics is interpreted so broadly and in many ways that, as a result, it loses its specific features that make any area of research a scientific discipline.

In recent years, a relatively new and promising direction of political science research has emerged in domestic science - the study of the mechanism for ensuring the national security of states, ways of realizing national interests, taking into account the systemic influence of geopolitical factors. With this approach, geopolitics, along with politics as such, acts as one of the objects of political science, and the *theory of geopolitics* - its integral part. Of course, geopolitics is a term that currently encompasses a fairly wide range of concepts. In particular, they distinguish between *fundamental geopolitics* (the theory of geopolitics), *conceptual geopolitics* (various private doctrines of state development and expansion), *applied geopolitics* (a methodology for studying spatial-power relations in individual regions and the world as a whole).

There are currently a significant number of definitions of geopolitics. However, today, taking into account the level of development of modern knowledge, one should distinguish between the concepts of geopolitics in the practical and theoretical plane. In practical terms, *geopolitics is the process of realizing the national interests of a geopolitical entity in time and space.* In theoretical terms, *geopolitics is a science that studies the systems of spatial-power relations that develop at the global and regional levels in the process of states' pursuit of policies to implement national interests and ensure national security.*

An important area of geopolitical research is the study of the dynamics of changes in the geopolitical situation, embodied in the concept of "geopolitical processes".

Geopolitical processes are significant changes in the spatial and power balance in certain regions and in the world as a whole, caused by the collapse or formation of geopolitical entities, as well as changes in the parameters of their geopolitical spaces. Geopolitical processes differ in scale (local, regional, global) and in importance for ensuring security (confrontational and peacekeeping, stabilization and destabilization, constructive and destructive, etc.).

In the modern world, the processes of *globalization* are decisive, which, in turn, give rise to the processes of *integration*, *fragmentation*, *regionalization* and *separatism*.

All these processes are dialectically linked. In the modern world, a twopronged process is taking place, consisting of two powerful, but opposite tendencies: centripetal, or integration, on the one hand, and centrifugal, or disintegration, decentralist, on the other hand. This is a kind of two-way movement: in one direction there is a process of internationalization and globalization, and in the other - a process of decentralization and autonomization. At the same time, globalization remains the dominant trend.

In the most general terms, globalization - is a geopolitical process that reflects the growing interdependence of countries and peoples, a tendency to-

wards the establishment of uniform standards of behavior in the economic, political, informational and cultural spheres.

The processes of globalization, which are uniform in their significance for the formation of the geopolitical structure of the world, can be conditionally subdivided into a number of components. Thus, it is customary to single out *economic, political, informational* and *cultural globalization*. A number of authors also mention demographic, ecological globalization, and the globalization of the technosphere.¹

Globalization is an objective and natural phenomenon. As a geopolitical process, it plays an essential role in the formation of a "new world order". No country in the world can evade globalization unless it wants to be completely isolated. At the same time, the processes of globalization do not always turn out to be favorable for this or that country. Each country is forced to determine for itself what is its response to the challenges and threats of globalization. At the same time, the reaction of states to the processes of globalization should not be reduced to denying the phenomenon itself and countering it in all possible ways. The fight should only be waged against the negative consequences of globalization, which, in particular, are manifested in the form of *transnational threats to security*. These threats, unlike the traditional threats characteristic of previous eras, *firstly*, do not have as their source hostile intentions on the part of legitimate geopolitical subjects - states, their alliances, destructive political forces within the state and, *secondly*, are not directed against a specific a geopolitical subject, but against humanity as a whole.

It is customary to consider the following as transnational threats: economic - growing inequality in socio-economic development between rich and poor countries, virtualization of finance, an increase in the share of speculative capital in world financial flows; ecological - depletion of natural resources; environmental pollution, the greenhouse effect and global warming, deforestation, the onset of deserts and rising sea levels; demographic - uncontrolled population growth, illegal migration, excessive demographic pressure on the natural environment; informational - lack of effective control over information flows, the possibility of massive manipulation of public consciousness on a global scale, virtualization of geopolitical space, vulnerability of information networks and control systems from unauthorized access; anthropological - the spread of epidemics on a mass scale, changes in the genetic code of mankind; natural-anthropological - an increase in the number of natural and man-made disasters with a large number of victims and destructions; criminal - the formation and growth of the influence of organized international criminal groups, drug trafficking and smuggling; international political - the weakening of the role of the state in international relations, the erosion of the system of international law, a decrease in the influence of international organizations (UN, OSCE, etc.) on world processes, the transformation of international terrorism into an independent subject of geopolitical confrontation, etc.

Another significant negative component of globalization processes is the desire of the most powerful geopolitical entities (the United States, Western countries as a whole) to use the realities of the modern world in their own selfish interests at the expense of other participants in the system of international relations. This phenomenon is a subjective dimension of the objective processes of globalization and is reflected in the geopolitical concepts of *globalism* prevailing in a number of countries. In this case, the rest of the world must constantly expose the selfish nature of the ideas of globalism, strive to prevent the implementation of globalist concepts when building a new geopolitical structure of the world, strengthen state sovereignty, and look for its own worthy answers to the challenges of globalization.

The specific features of geopolitical processes at the present stage are:

- exacerbation of the global geopolitical confrontation as a result of the failure of the aspirations of certain geopolitical entities to establish a unipolar world;

- the growth of the conflict potential of geopolitical regions, caused both by the exacerbation of intraregional contradictions, and by the intervention of global geopolitical actors in order to maintain their influence in the regions by pursuing a policy of "controlled chaos";

- increasing the influence of the factor of political extremism and terrorism on geopolitical processes at the global and regional levels;

- virtualization of the geopolitical space, strengthening the role of information support and influence in the implementation of the national interests of leading geopolitical subjects;

- reducing the role and place of the state as the main geopolitical subject in the context of globalization;

- the adoption by influential geopolitical actors of the technologies of "hybrid operations" and the transformation of the latter into a separate form of geopolitical confrontation;

- the formation of scenarios of "color revolutions" as a tool to achieve geopolitical goals by changing unwanted political regimes and reformatting the regional geopolitical space.

The last two features should be discussed in more detail.

The term "hybrid wars" has become firmly established in the political lexicon at the turn of the 20th - 21st centuries. At the moment, there is no single definition of this phenomenon. Some experts believe that a hybrid war is a type of military confrontation between individual states, in which, in addition to or instead of a regular army, special operations forces, mercenaries, terrorist groups, private military companies, and elements of "non-systemic opposition" are used. In this case, the main goal is most often not the occupation and annexation of the territory, but a change in the political regime or a change in the direction of state policy of the state under attack. Others believe that hybrid warfare is an actual type of warfare, which one of the belligerents wages not on its own behalf, but on behalf of another army, while actively using propaganda, subversive activities of special services on enemy territory and various techniques for distorting information.

Without pretending to be the ultimate truth, I consider it necessary to believe that under current conditions it is legitimate to talk not about hybrid wars as such, but about *hybrid operations or actions*, which should be understood as *the coordinated use of political-diplomatic, information-psychological, economic and power tools to achieve geopolitical goals.* In the course of such operations, it is usually provided for the use of military and non-military tools in an integrated campaign aimed at achieving surprise, seizing the initiative, and the moral and psychological suppression of the enemy. In addition, large-scale and rapid information, electronic and cyberattacks, as well as intelligence actions, combined with economic pressure, are practiced.

According to A.V. Manoilo, "... hybrid wars involve the combined use of strategies characteristic of various types of modern wars - traditional, informational, ideological, economic, to deliver a military strike to the enemy, to defeat his forces and means, to achieve military strategic superiority and forceful peace enforcement on the terms of the winner. At the same time, hybrid wars can be waged both in the traditional form (assuming the presence of a front line, rear services of various depths and actions of a regular army), and in a network-centric form, where the front line is absent in principle. In a hybrid war, it is information operations that can play a decisive role in forcing the enemy to surrender."²

According to a number of experts, hybrid operations found their application during the "color revolutions" that affected a number of Arab countries and states in the "post-Soviet space." *A color revolution is a technology for organizing a coup d'etat in conditions of artificially created political instability, when pressure on the authorities is carried out in the form of political blackmail, and a specially organized youth protest movement acts as the main driving force of a ramming strike against the authorities.* It can be added that the opposing sides are moving from political blackmail to forceful measures of influence, the implementation of which can lead to the outbreak of a civil war in the country, during which the technologies of the above-mentioned hybrid war are used.³

However, there is a fundamental difference between hybrid wars (operations) and color revolutions. So, if the goal of a hybrid war is the destruction or surrender of the enemy, then the main and only goal of the color revolution is the organization and implementation of a coup d'etat. In other words, color revolutions are technologies of violent seizure of power in conditions of artificial creation of political instability in a particular country.

Thus, it can be argued with a high degree of probability that it was the nature and content of modern geopolitical processes, as well as the practical application

of the strategy of "hybrid operations" that led to the well-known events in the Arab world and in Ukraine. A number of countries in Central Asia and Latin America are under the threat of "color revolutions". But not a single country that underwent the "color revolution" has achieved political stability, economic growth and an improvement in the lives of ordinary citizens.

The modern world is characterized by high dynamics of development. Global geopolitical processes are also subject to changes. So, what are the possible scenarios for their development? The first scenario is a significant aggravation of geopolitical confrontation at the global and regional level, the return of the system of international relations during the "Cold War". The second scenario is to preserve the current state of geopolitical confrontation, "freeze" regional conflicts, and increase the intensity of application of the "hybrid operations" strategy. The third scenario presupposes a gradual stabilization of the internal political situation in countries subjected to external influence using the strategy of "hybrid operations", a gradual settlement of regional conflicts within the framework of the negotiation process. The latter scenario is preferable for the entire world community, but the development of geopolitical processes according to the second scenario is more likely.

References

1. Yakovets Yu.V. Globalization and interaction of civilizations. – M.: Economy, 2001. – P.6–13.

2. Manoilo A.V. Information wars and psychological operations. Guide to action. M.: Hotline – Telecom, 2020. – P.262.

3. A.A. Bartosh. Hybrid wars in the US and NATO strategy. How to ensure Russia's national security in the face of unconventional threats and challenges // Independent military review. – October 10. 2014.

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评估基于烯丙基氯的表氯醇现代生产工人的暴露化学负荷及其与健康指标 的关系

ASSESSMENT OF EXPOSURE CHEMICAL LOADS AND THEIR ASSOCIATION WITH INDICATORS OF HEALTH IN WORKERS OF MODEM PRODUCTION OF EPICHLOROHYDRIN BASED ON ALLYLCHLORIDE

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在基于氯丙烯的现代环氧氯丙烷生产中,主要的卫生重要性是对氯丙烯 (AC)和环氧氯丙烷(EPHH)的工人的影响-属于第二类危险化学品,目前 通常不超过卫生标准标准。同时,化学因素对工人的负面影响仍然是个问 题,因为长期接触多种有毒物质的工人承受一定的化学负荷,会对他们的 健康产生负面影响。根据该生产工人的暴露化学负荷(ECL)评估结果,体 格检查和健康自我评估,工人揭示了健康指标和ECL的各个指标之间的相关 性,从而有可能将已确定的健康状况联系起来接触毒物积累的疾病。基于 此,建议使用ECL指标来确定已发现的健康疾病的生产依赖性。

关键词环氧氯丙烷生产;暴露化学暴露;与健康指标的联系

Abstract. In the modern production of epichlorohydrin, obtained on the basis of allyl chloride, the main hygienic importance is the effect on the workers of allyl chloride (AC) and epichlorohydrin (EPHH) - chemicals of the 2nd hazard class and currently generally do not exceed hygienic standards. At the same time, the problem of the negative impact of the chemical factor on workers remains relevant, since workers who have been exposed to a complex of toxicants for a long time bear a certain chemical load that can negatively affect their health. Based on the results of the assessment of exposure chemical loads (ECL) among workers of this production, medical examination and self-assessment of health, the workers revealed correlations between individual indicators of health and ECL, which made it possible to link the identified health disorders with the accumulated exposure to toxicants. Based on this, it was recommended to use the ECL indicators to establish the production dependence of the identified health disorders.

Keywords epichlorohydrin production; exposure chemical exposure; connection with health indicators.

Epichlorohydrin (EPHH) is one of the most sought after products in the chemical industry. Due to its high reactivity, it is widely used in the production of epoxy and ion exchange resins, synthetic glycerin, and the pharmaceutical industry. Currently, the global production of EPHH reaches 300 thousand tons/year. Global EPHH consumption is expected to grow by an average of 4%/year. [1]. In Russia, a noticeable increase in EPHH production capacities is also planned in the coming years [2].

In modern production of EPHH based on allyl chloride, the main importance is the exposure of workers to allyl chloride (AC) and epichlorohydrin (EPHH) - chemicals of the 2nd hazard class according to GN 2.2.5.1313-03. and at the present time, basically, do not exceed the hygienic standards. Nevertheless, the etiological role of a chemical factor in the formation of the morbidity of workers in this production is not entirely clear, which is currently due to the relatively low levels of exposure to toxicants on workers. Thus, our earlier retrospective assessment of the air in the working area of the specified production over a long period of time [3] showed a significant decrease in the concentration of AC in the air of the working area in recent years (from 0.09 to 0.2 mg/m³ at MPC 0.3 mg/m³) and EPHH (from 0.35 to 0.7 mg/m³ at MPC 2.0 mg/m³) due to the improvement of the technological process, optimization of working conditions.

In the literature there are sporadic information regarding the assessment of working conditions in the production of EPHH [3], the effect of chemical air pollutants in the working area on the body [4-6]. At the same time, the problem of the negative impact of the chemical factor on workers in this production remains relevant, since workers who have been exposed to harmful chemicals for a long time bear a certain exposure chemical load that can negatively affect their health.

In this regard, the aim of this study was to assess the exposure chemical loads (ECL) and associate them with the health indicators of workers in the EPHH industry to establish the association of morbidity with the profession.

Materials and research methods

The object of research was the production of EPHH in a large chemical company in Eastern Siberia, workers of this production.

Calculations and assessment of exposure chemical loads (ECL) indicators for workers of three main professions (machine operators, repairmen, ETP) were carried out on the basis of methodological recommendations developed by the staff of the East Siberian Institute of Medical and Environmental Research [7]. ECL calculations were carried out taking into account the volume of pulmonary ventilation depending on the category of labor severity using the following formula: ECL = C • Q • N / 1000 g. Where: ECL - exposure chemical load, g; C - the average shift concentration of a chemical in the air of the working area, mg/m³; Q - the volume of inhaled air per shift (pulmonary ventilation); N - the number of work shifts per year.

The analysis of the accumulated morbidity of workers was carried out according

to the results of a medical examination carried out by specialists of the clinic of the East Siberian Institute of Medical and Environmental Research. For self-assessment of the health status of workers, reflecting the pre-nosological state of the body, a questionnaire-survey method was used for quantitative assessment of the risks of the main general pathological syndromes (MGPS).

Statistical data processing was carried out using the Statistica 6.1 software package. To compare the indicators, Student's t-test was used. Differences were considered statistically significant at p < 0.05.

Results.

Epichlorohydrin is obtained by chlorination of propylene to obtain crude allyl chloride, which is subjected to rectification, synthesis with hypochlorous acid and dichloropropanols to obtain epichlorohydrin. The technological process is automated. The main professions in this production are machine operators, repairmen and engineering and technical personnel (ETP). Allyl chloride (AC) and epichlorohydrin (EPHH) are the main chemicals that pollute the air in the work area during the production of epichlorohydrin.

In a comparative analysis of the indicators of the average values of exposure chemical loads AC and EPHH (table 1), it was established that the greatest exposure load of toxicants had the apparatus operators $(38.71 \pm 10.7 \text{ g} \text{ for AC} \text{ and } 9.41 \pm 2.61 \text{ g}$ for EPHH) compared with locksmiths and ETP, while the differences in AC loads were statistically significant (p <0.05). This is probably due to the fact that, according to time studies, the apparatus operators are exposed to toxicants for much longer, making repeated rounds of the equipment directly in the workshop (up to 70% of the working time), and only about 25-30% of the shift time they are in the control room management. At the same time, repairmen repair equipment for a significant part of their working time (45-60%) in special rooms, where the concentration of toxicants in the air of the working area is insignificant.

Table 1

various professions, g						
Professions	Chemical substance	Average, M±m	min	max		
Operators	AC	38,7±10,7*	14,5	64,0		
Locksmiths	AC	23,8±3,4	10,0	55,8		
ETP	AC	25,2±3,8	5,0	55,4		
Operators	EHH	9,4±2,6	5,2	13,2		
Locksmiths	EHH	7,0±0,8	0,6	17,7		
ETP	EHH	6,7±1,0	0,5	19,9		

Indicators of exposure chemical loads by toxicants among workers of various professions, g

Note: * - the differences in the indicators of chemical loads AC in the group of operators compared to the groups of locksmiths and ETP are statistically significant (p < 0.05).

In a quantitative assessment of the risks of the main general pathological syndromes (MGPS), it was found that, when the examined people were divided into risk groups (table 2), 60.4% of workers turned out to be practically healthy (minimal risk of diseases). At the same time, persons with minimal risk prevailed in all professional groups, however, among the operators, their share was the smallest due to the prevalence of persons with high risk.

Table	2
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	Professional groups			
Health risk groups	Operators	Locksmith	ЕТР	
Minimum	49,3±5,9*	71,4±7,0	66,7±6,4	
Medium	16,9±4,4	14,3±5,4	16,7±5,1	
High	33,8±5,6*	14,3±5,4	16,7±5,1	

Distribution of surveyed workers by health risk groups,%

Note: * - the differences in indicators in the group of operators compared with the groups of mechanics and ETP are statistically significant (p < 0.05).

In the structure of health risks, the most common risks were neurological disorders and borderline mental disorders - 35.0%, functional disorders of the digestive and cardiovascular systems (arterial hypertension and coronary heart disease) - 23.6% and 17.9%, respectively. The risk of combined pathology (more than 2 diseases) was observed in 21.6% of the surveyed workers. At the same time, among the operators, the share of risks with combined pathology was statistically significantly higher (29.6 \pm 5.4%), compared with locksmiths and ETP (respectively, 14.3 \pm 5.4%; 16.6 \pm 3.2%; p <0.05).

According to the data of an objective medical examination, a small proportion of practically healthy persons was revealed (15.1 ± 2.5 per 100 examined), while more than half of the workers were diagnosed with 2.3 or more diseases. The leading places in the structure of the accumulated morbidity were occupied by diseases of the musculoskeletal system (27%), the cardiovascular system (21%), the nervous system (14%), and diseases of the sensory organs (13%). The highest prevalence of diseases in occupational groups was noted for diseases of the musculoskeletal system (60.0 ± 8.9 per 100 examined in the operators compared to 46.6 ± 8.0 in the mechanics (p < 0.05) and 34.1 ± 8.8 - for ETP (p < 0.05); for diseases of the cardiovascular system (36.0 ± 6.9 per 100 surveyed operators, 32.8 ± 6.7 for locksmiths and 47.7 ± 10.4 ETP without statistically significant differences in occupational groups). For the rest of the classes of identified diseases, the prevalence rates in occupational groups also did not differ significantly. At the same time, the correlation analysis revealed statistically significant (determination coefficient 0.9), nonlinear dependences of the number of cases of detected diseases in general on the values of exposure loads AC and EPHH, as well as combinations of these substances (r = 0.32; r = 0.36; r = 0.42; p <0.05). In the operators, statistically significant relationships were also found between the ECL values and the scrapping of cases of infectious skin diseases (r = 0.45; p <0.05), diseases of the digestive system (r = 0.24; p <0.05), the nervous system, and mental disorders (r = 0.32; p <0.05). It was also found that among workers with a low chemical load AC, the incidence rates due to diseases of the circulatory system and the digestive tract, according to the medical examination data, were 2.1 and 3.3 times lower than in people with a high chemical load. With an increase in ECL in operators and locksmiths, there was also an increase in the risks of functional disorders from the nervous system and borderline mental disorders (respectively, AC by 1.9 and 1.5 times, EPHH - by 1.6 and 1.7 times), combined load, respectively, by 1.9 - and 1.5 times.

Thus, the data obtained make it possible to associate changes in the health status of EPHH workers with accumulated exposure to harmful chemicals, despite the relatively low levels of toxicants in the air of the working area. The results of the study allow using the exposure chemical loads (ECL) indicators to substantiate the production conditionality of the identified health disorders in EPHH production workers, especially under the influence of relatively low concentrations of toxicants.

References

1. Epichlorohydrin in world consumption. Kxkperm.ru.info/articles/ epikhlorgidrin-v-mirovom consumption (Appeal date 30.11.2020).

2. Handbook of a chemist 21. Chemistry and chemical technology. Epichlorohydrin. WWW. chem 21 imfo (Appeal date 30.11.2020).

3. Taranenko N.A., Meshchakova N.M., Zhurba O.M., Telezhkin V.V. On the study of chemical air pollution by organochlorine hydrocarbons in the production of polyvinyl chloride and epichlorohydrin. Hygiene and sanitation. 2014. 4: 47-51.

4. Olsen G.V., Lacy S.E., Chamberlin S.R., Albert D.I., Arceneaux T.G. et al. Retrospective cohort mortality study of workers potential exposed to epichlorohydrin and allyl chloride. Br. J. Ind. Med. 1994, 25: 205–8.

5. Davydova N.S. Hygienic assessment of the effect of a complex of chlorinated hydrocarbons on the immunological reactivity of workers at the epichlorohydrin production: Abstr. diss. cand. med. sci.– Irkutsk, 1999. -28 P.

6. Lagunova V.V. The effect of chlorinated hydrocarbons on the functional state of the stomach and the hepatobiliary system working in the production of epichlorohydrin and dichloroethane. Moscow School of Industrial Toxicologists. Edited by Corr.-Member of RAMS I.V. Sanotsky. - M, 2011, volume 1:. 51 –2.

7. Meshchakova N.M., Dyakovich M.P., Shayakhmetov S.F. Assessment of occupational risk for workers in chemical production, taking into account the exposure toxic load: guidelines: Approved by the Scientific Council of the Russian Academy of Medical Sciences on medical and environmental health problems of workers, Angarsk: 2013. 19 P. DOI 10.34660/INF.2020.64.87.024

监测乌德穆尔特共和国小学生中支气管哮喘的患病率 MONITORING THE PREVALENCE OF BRONCHIAL ASTHMA AMONG SCHOOLCHILDREN OF THE UDMURT REPUBLIC

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在2018-2019学年,根据ISAAC方法,对乌德穆尔特共和国(UR)的学童进行了一项研究,以确定支气管哮喘的患病率(BA)。为了确定BA趋势,将获得的数据与1999年,2002年,2009年和2014年进行的类似调查的结果相关。在随访的20年中,发现当前BA症状的患病率很高有逐渐减少的趋势。

关键词:支气管哮喘, ISAAC,患病率。

Abstract. In the 2018-2019 academic year, a study was conducted among schoolchildren of the Udmurt Republic (UR) to determine the prevalence of bronchial asthma (BA), in accordance with the ISAAC methodology. To determine the BA trend, the data obtained were correlated with the results of a similar survey conducted in 1999, 2002, 2009 and 2014. In the dynamics over 20 years of follow-up, a high level of prevalence of current BA symptoms was noted with a tendency to gradual decrease.

Keywords: bronchial asthma, ISAAC, prevalence.

Bronchial asthma (BA) is a chronic inflammatory disease of the airways with numerous pathophysiological mechanisms leading to recurrent episodes of bronchoconstriction and structural changes in the bronchi [3, 6]. Bronchial asthma is widespread among children and adults. In the world, more than 235 million suffer from this pathology according to 2018 data [2]. According to statistical data, 1.5 million people with BA are registered in Russia [7], but the real number significantly exceeds the official data and, according to experts, amounts to 5.9 million people. Moreover, in preschool children, the disease occurs twice as often as in adults. As a result of the 2018 epidemiological study, the prevalence of BA among adults was 6.9%, and among children and adolescents - about 10%. According to the statistical digest of the Ministry of Health in 2018, for the first time 32,525 children were registered with a diagnosis of bronchial asthma in the Russian Federation, which is 127 children per 100,000 children of the population. In the Volga Federal District, 7641 cases of the established diagnosis were registered, which corresponds to 148 children per 100,000 children of the population.

BA in children has a number of age-related characteristics, which include the dynamism of clinical manifestations, a variety of risk factors that differ from those in adults, a limitation in the use of diagnostic methods and the appointment of drug therapy. Late diagnosis leads to a decrease in the quality of life of children. It is necessary to monitor the prevalence of BA in children to study the epidemiological characteristics of the disease and plan preventive measures to reduce the incidence of BA in the population [1, 3, 6, 8].

To assess the prevalence of BA symptoms, the standardized WHO-recommended international methodology ISAAC (International Study of Asthma and Allergiesin Childhood) is used, which makes it possible to record the manifestations of allergic diseases (AD) within countries and compare regional indicators obtained regardless of national characteristics of the classification of the disease, diagnosis criteria, level medical care. The program involves a survey of two groups of children corresponding to students in the first and eighth grades in Russia.

In the Udmurt Republic, the first epidemiological study under the ISAAC program was carried out in 1999, then in 2002, 2009 and 2014. The present study involved 3064 schoolchildren. The survey was completed from October 2018 to March 2019 and was completed before the onset of seasonal manifestations of allergic diseases. The data obtained were compared with the results of previous years to determine the epidemiological trends of bronchial asthma. The results were statistically processed using Microsoft Excel. According to the results of the survey conducted in the 2018-2019 academic year, among schoolchildren of the first and seventh grades, the overall prevalence of current asthma-like symptoms was revealed and amounted to 8.12% (table 1).

		Prevalence	
Sign	Absolute number (n)	Percentage (%)	
Asthma-like symptoms throughout life	541	$17,65 \pm 0,69$	
Asthma-like symptoms in the past 12 mont	249	8,12 ± 0,49	
Number of attacks of asthma-like symptoms in the last 12 months	1-3	327	68,0 ± 2,1
	4-12	104	$21,6 \pm 1,87$
	Over 12	50	$10,4 \pm 1,39$
Sleep disturbance due to asthma-like symptoms in the past 12 months	Less than 1 night per week	136	4,44 ± 0,37
	More than 1 night per week	55	1,79 ± 0,24
Asthma-like symptoms with difficulty of breathing or severe shortness of breath		62	2,02 ± 0,47
BA diagnosis		114	$3,72 \pm 0,34$
Bronchospasm of physical activity in the past 12 months		224	7,31 ± 0,47
Dry cough at night, not associated with a cold in the past 12 months		543	17,72 ± 0,69

Table 1. General prevalence of asthma-like symptoms and established BA
diagnosis among schoolchildren in the Udmurt Republic (2018-2019).

The prevalence among first graders was 5.5%, and among eighth graders - 10.5%. The lifetime rate of asthma-like symptoms among students was quite high and amounted to approximately 17.5%. Mild forms of bronchial asthma prevailed in children. Signs reflecting a severe uncontrolled course (more than 12 exacerbations per year, asthma-like symptoms more than one night per week, severe shortness of breath) were recorded quite rarely. Among children with BA manifestations during the last 12 months, exercise bronchospasm was recorded in 89% of children. Every 5th student has had at least one episode of a non-cold cough in the past year. The presence of a verified BA diagnosis was established in 3.7% of pupils, which is less than half of children with current symptoms. It can also be observed that a history of asthma-like symptoms led to a diagnosis in 21% of schoolchildren. In the structure of the severity of the course of the disease in children with asthma-like symptoms, mild forms were significantly more common in 68% of cases, with a small number of patients with moderate forms in about 22% and severe in 10% of cases.

There are well-known gender characteristics of BA that determine the predisposition of males to the development of bronchial asthma. 1357 males and 1707 females participated in the survey. The prevalence of asthma-like symptoms over the past 12 months prevailed in boys and amounted to $8.6\pm0.7\%$, the same indicator in females was $7.5\pm0.7\%$ (p<0.01). Nocturnal symptoms were experienced by
68% of boys and about 50% of girls with current BA. Severe shortness of breath according to the results of the questionnaire was recorded in 8.2% of boys and 6.2% of girls. BA was diagnosed in 3.3% of boys and 4.2% of girls, which is 38% and 56%, respectively, of the number of children with asthma-like symptoms in the last 12 months.

The incidence of current BA symptoms and verified BA diagnoses between cities and regions of Udmurtia differed. BA symptoms were significantly more frequently (p<0.001) registered in rural residents and amounted to 11.3%, in Izhevsk this indicator was 7.8%. Mild BA prevailed in all UR cities and districts. Nocturnal episodes of shortness of breath and cough in children with current BA symptoms were recorded at the highest level in the regions of the Udmurt Republic and amounted to 3.2%. BA was diagnosed in about 4% of cases in Izhevsk and UR districts.

According to the results of the analysis of the obtained data in dynamics over 20 years, an increase in the prevalence of symptoms of current BA was recorded by 2002 (9.8%) compared to 1999 (9.1%). In subsequent research periods, on the contrary, there was a decrease in the prevalence rate to 9.4% in 2009 and to $8.7\pm0.4\%$ in 2014 [4, 5]. In 2019, this figure was 8.12%. The prevalence of asthma-like symptoms in schoolchildren in Izhevsk was the highest in 2009 and amounted to 10%. (Figure 1). A prospective study of the trend to study the dynamics of the prevalence of BA symptoms over a twenty-year period tends to decrease this indicator in children of the Udmurt Republic.



Figure 1. The dynamics of the prevalence of current symptoms of bronchial asthma in schoolchildren of the Udmurt Republic (ISAAC 1999 - 2019)

Over the entire period of the study, the schoolchildren had a mild BA disease

course with exacerbations 1-3 times a year. However, the proportion of exacerbations 12 times a year or more increased from 7.9% to 10.4%. The nocturnal episodes of asthma attacks 2 times a week or more, which on average were observed in 1.6% of schoolchildren in 1999, also underwent changes, this indicator increased to 1.79% by 2019. Despite the dynamics of improvement in BA diagnosis, the difference between the current symptoms of the disease and the established diagnosis remains quite significant.

Conclusions:

The prevalence of bronchial asthma symptoms according to the ISAAC program in 2019 among schoolchildren of the Udmurt Republic was 8.12±0.4%.

In the structure of morbidity among schoolchildren, mild forms of BA (68.0 \pm 2.1%) prevail over moderate forms of 21.6 \pm 1.9% and severe forms of 10.4 \pm 1.4% (p<0.001).

The current symptoms of bronchial asthma in 2019 were less common in girls $7.5\pm0.7\%$ compared with boys $8.6\pm0.7\%$ (p<0.01).

Symptoms of bronchial asthma were significantly more often registered in rural residents than in urban ones.

In children, the incidence rates of bronchial asthma in the Udmurt Republic in dynamics over 20 years have decreased from 9.1% to 8.12% (p<0.02).

References

1. Baranov A. A. Bronchial asthma in children / A. A. Baranov, I. I. Balabolkin // Children's allergology. Guide for doctors. - M.: GEOTAR — Media, 2006. — 688 P.

2. World Health Organization. https://www.who.int/ru

3. Geppe N.A. Relevance of the problem of bronchial asthma in children / N.A. Geppe // Pediatrics. - 2012. - V. 91. - № 3. - P. 76 - 82.

4. Ermakova M.K., Allergic diseases of the respiratory system in children and adolescents of the Udmurt Republic: abstract of thes. of dr. med. sciences / Ermakova M.K - M., 2000.

5. Ermakova M.K., Matveeva L.P., Kapustina N.R. Bronchial asthma in children of Udmurtia: monitoring features for 15 years. - 2014.

6. National program "Bronchial asthma in children. Treatment strategy and prevention". - 5th ed., rev. and add. - Moscow: Original-maquette, 2017.

7. Russian Ministry of Health. Statistical collection 2017. https://www.rosminzdrav. ru/

8. Difficulties in the diagnosis and treatment of bronchial asthma in children of the first five years of life / N.G. Astafieva [et al.] // Attending physician. - 2011. - N 1. - P. 21 -27.

DOI 10.34660/INF.2020.57.95.025

PRP技术背景下慢性胸腔积液胸腔积液的结构和空间组织 STRUCTURAL AND SPATIAL ORGANIZATION OF PLEURAL FLUID IN CHRONIC PLEURAL EMPYEMA AGAINST THE BACKGROUND OF PRP TECHNOLOGY

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从对患有慢性胸膜积脓的动物的残留腔中获得的胸膜渗出液相进行晶体 学研究的结果,在炎症灶的增生性变化与生物液体化学成分的变化之间建 立了联系。研究样本的结构空间组织。因此,在实验的早期阶段,使用 PRP技术的小组记录了晶体结构的动态变化,渗出相的蛋白质和矿物质含量 有限。

关键词: 晶体学, 胸膜渗出液, 生物液, 慢性胸膜积脓, 粘连形成, PRP技术。

Abstract: As a result of a crystallographic study of the pleural exudate facies obtained from the residual cavity of animals with chronic pleural empyema, a relationship was established between proliferative changes in the inflammation focus, as well as changes in the chemical composition of the biological fluid, and the structural-spatial organization of the samples under study. So, in the group using PRP-technology in the early stages of the experiment, dynamic changes in crystal structures were recorded with limited protein and mineral fractions of exudate facies.

Keywords: crystallography, pleural exudate, biological fluid, chronic pleural empyema, adhesion formation, PRP technologies.

Introduction

One of the urgent tasks of modern thoracic surgery is the elimination of the residual pleural cavity, which forms in chronic pleural empyema. Being a focus of chronic inflammation, the residual cavity increases the risk of recurrence of infection [1, 2]. To date, a promising direction in the treatment of this pathological process is the stimulation of adhesiogenesis using biological substrates [3].

The most widely used in the treatment of various diseases is the use of PRP technology. PRP-technology (Patelet Rich Plasma) is an innovative method of treatment that uses platelet-rich plasma [4]. Platelet secretory granules contain a large amount of proteins and growth factors that can stimulate cell proliferation. Due to this, PRP technologies are used to enhance the regeneration processes and antibacterial protection of the inflammation focus [4, 5].

Purpose

Determine the presence of changes in the structural-spatial organization of the pleural fluid in chronic pleural empyema against the background of the use of PRP technology.

Material and methods

The experimental study was carried out on 270 white non-linear rats weighing 180-210 g., which were housed according to the "Rules for working with experimental animals" based on the principles of bioethics and laboratory practice (GLP). The study with laboratory animals was carried out in accordance with the research protocol that did not contradict the 2000 Helsinki Declaration on the humane treatment of animals, as well as in accordance with the "International Recommendations for Biomedical Research Using Animals" (1985), orders of the Ministry of Health of the Russian Federation No 267 of 19.06.2003 "On the approval of the rules of laboratory practice" and the Ministry of Health of the USSR No 755 of 12.08.1977

Study design. At the first stage, in all animals chronic pleural empyema was modeled according to the author's method [6]. At the second stage, the animals were divided into three groups: in group I, no treatment was carried out - control group, individuals of group II were injected intrapleurally with 1% doxycycline solution in a volume of 1.0 ml - comparison group, in group III PRP technologies were used for treatment (Set for blood sampling Plasmolifting[™], Plasmolifting LLC, Kazan, Russia TU 9437-002-27837594-2015, registration certificate № RZN 2016/3980 dated 19.04.2016). removal of animals from the experiment was carried out on days 10, 20 and 30 from the beginning of the second stage.

To determine the structural and spatial organization of pleural fluid in chronic pleural empyema, we used the method of wedge-shaped dehydration according to the author's method [7]. The exudate obtained from the residual pleural cavity of the experimental animals was dug onto a clean, dry, defatted glass slide in a vol-

ume of 10 μ l and dried for 24 hours. Native facies preparations were studied by the morphometric method using the LAS Version 4.2.7 software. When studying the type of the crystal lattice of facies, the diameter of the droplet, the thickness of the central and peripheral zones, the presence and shape of crystals, and the degree of their branching were estimated.

Statistical processing of the obtained data was carried out using the EXEL 10.0 software packages (Microsoft, USA) with the determination of the Kolmogor-ov-Smirnov test, Student's t-test (p<0.05).

Research results

In the study of the facies of the pleural exudate of animals obtained from the residual cavity in chronic pleural empyema, at the initial stages of the experiment in all groups, there was a violation of the structural-spatial organization of the biological fluid.

Thus, in the facies of individuals of the control group, the structural-spatial disorganization of the pleural exudate was characterized by the absence of zoning between the mineral and organic fractions of the facies (fig. 1).



Fig. 1. Chronic pleural empyema for 10 days. Crystallography of facies of group I (control).

In the central part, fragments of destroyed crystals characterized by geometric blur were identified. A peripheral zone of small thickness with the presence of sin-

gle plaques, along the edges of which many short wavy lines were recognized (a pathological marker of intoxication of the body). Pathological dark crystals were detected throughout the entire field of view of the preparation.

Native preparations of group II at this time were characterized by blurred boundaries between the central and peripheral zones. In the central part of the droplet, the process of protein folding was determined in the form of local crystallized defective structures, which looked like thin spirals. The complication of the structure of the crystal pattern of the preparation, characterized by the determination of small crystals of a linear shape, was observed in the region of the intermediate zone. However, the absence of clear boundaries indicated the structural and spatial disorganization of the pleural fluid in this group (fig. 2).



Fig. 2. Chronic pleural empyema on day 10. Crystallography of the II group facies (administration of doxycycline).

The facies of the pleural exudate of the III group had a similar crystallographic picture with the previous group (fig. 3). However, in the central part, amorphous substances of average optical density were determined.



Fig. 3. Chronic pleural empyema on the 10th day. Group III facies crystallography (PRP technologies).

In the region of the transition zone, dendritic structures with first-order branching were determined, which were located along the edge of the central zone, forming a concentric circle with a fuzzy line of mutual transitions. The peripheral part of the facies was characterized by a small thickness and the presence of singular thin cracks.

On the 20th day of the experiment in group I, the crystal picture of native preparations of pleural exudate did not differ in comparison with the early period. Uneven distribution of pathological crystals was observed in all areas. In the marginal zone, markers of intoxication in the form of plaques of different sizes were recorded (fig. 4).



Fig. 4. Chronic pleural empyema on the 20th day. Crystallography of facies of group I (control).

It should be noted that during the crystallography of the pleural exudate facies of animals, where doxycycline was used, the presence of large crystals resembling a fern leaf was observed. The predominant arrangement of such crystals was recorded in the central part of the drop (fig. 5).



Fig. 5. Chronic pleural empyema on the 20th day. Crystallography of the II group facies (administration of doxycycline).

Crystals of a linear shape and fragments of destroyed crystals were noted in the intermediate part. Disturbance of the structural-spatial organization of facies was characterized by the absence of clear boundaries between the mineral and protein fractions.

In the study of the facies of the pleural exudate of individuals of group III, the erasure of the boundaries between the central and peripheral zones was recorded. However, at this time of the experiment, the presence of longitudinal fractures was observed reaching the center of the facies. In the forming cells, an accumulation of spider and dendritic crystals with branching of the 1st and 2nd order, having directionality, was recorded (fig. 6). The increase in the thickness of the marginal zone was characterized by the presence of amorphous structures of average optical density with a rounded shape.



Fig. 6. Chronic pleural empyema on the 20th day. Group III facies crystallography (PRP technologies).

By the end of the experiment, the samples of animals from the control group retained the structural-spatial disorganization of the pleural exudate facies (fig. 7).



Fig. 7. Chronic pleural empyema on the 30th day. Crystallography of facies of group I (control).

Expansion of the marginal zone with the presence of plaques and fragments of destroyed crystals was recorded. The accumulation of pathological crystals was uneven, with a predominant localization in the intermediate zone, around which crystals of a linear shape without branches were formed. At the same time, the central part was filled with protein conglomerates of various shapes, among which pathological dark crystals were determined.

It should be noted that in groups II and III, on the 30th day, normalization of the structural-spatial organization of exudate facies with the presence of a completed type of crystallization was noted (fig. 8, 9).



Fig. 8. Chronic pleural empyema on the 30th day. Crystallography of the II group facies (administration of doxycycline).

However, in the animals that were injected with doxycycline, the peripheral zone was significantly thinner than in the samples of group III. Crystals of a linear shape with one or two short branches, forming a rim in the form of waves, which separated the mineral and organic fractions of the facies, were recorded in the area of mutual transitions. The central part was filled with large crystals in the form of a fern leaf with branches, some of which were located at right angles.



Fig. 9. Chronic pleural empyema on the 30th day. Group III facies crystallography (PRP technologies).

When using the PRP-technology, at this time, an expansion of the protein fraction was observed, characterized by the deposition of protein masses according to the type of Wallner's lines, which had a symmetrical arrangement. The marginal zone with characteristic cracks. In the region of the intermediate zone of the preparation, dendritic crystals with branching of the first and second order were recorded. While the central part is filled with crystals of a tree-like shape with branching, having directionality.

Conclusions. Thus, as a result of a crystallographic study, a relationship was established between a change in the molecular composition of pleural exudate in chronic pleural empyema and the type of crystallization of facies. Thus, in the groups where doxycycline and PRP technology were used, dynamic shifts in the structural-spatial organization of facies were observed, characterized by the presence of clear boundaries between the mineral and protein fractions; the formation of crystals with an orientation and the absence of pathological markers (plaques, nodules, destroyed crystals).

At the same time, in the groups using PRP technology, signs of normalization of the structural-spatial organization were observed at an earlier date. This is due

to the work of a large number of proteins and growth factors, under the influence of which the active proliferation of pathological exudate occurred, which was reflected in an increase in the thickness of the peripheral zone, the presence of a directed arrangement of crystals and the absence of pathological inclusions.

References

1. Kireeva E.M., Romanov M.D., Tishenkov D.A. Local sanitation of patients with acute pleural empyema: opportunities and prospects // Scientific review. Medical sciences. -2016. $-N_{\odot}$ 3 - P. 62-70.

2. Bender M.T., Ferraris V.A., Saha S.P. Modern management of thoracic empyema // South Med J. -2015. -V.108, $N \ge 1$. -P. 58-62. doi:10.14423/SMJ.0000000000226.

3. Bucknor A., Harrison-Phipps K., Davies T. Is silver nitrate an effective means of pleurodesis? // Interact Cardiovasc Thorac Surg. – 2015. – V. 21. – P 521–525. doi: 10.1093/icvts/ivv182.

4. Atashi F., André-Lévigne D., Colin D.J., Germain S., Pittet-Cuénod B., Modarressi A. Does non-activated platelet-rich plasma (PRP) enhance fat graft outcome? An assessment with 3D CT-scan in mice // J Plast Reconstr Aesthet Surg. -2019. - V. 72, No 4. - P. 669-675. doi: 10.1016/j.bjps.2018.12.039.

5. Andrew L. Frelinger, Anja J. Gerrits, V. Bogdan Neculaes, Thomas Gremmel, Andrew S. Torres, Anthony Caiafa, Sabrina L. Carmichael, Alan D. Michelson. Tunable activation of therapeutic platelet-rich plasma by pulse electric field: Differential effects on clot formation, growth factor release, and platelet morphology. // PLoS One. – 2018. – V. 13, N_{2} 9. - e0203557. doi: 0.1371/journal. pone.0203557.

6. Kalashnikov A.V., Kalashnikova S.A., Aydaeva S.Sh. A method for modeling the residual pleural cavities // Rationalization proposa $N_{0}6$ dated 22.01.2018.

7. Kalashnikov, A.V. Method of differential diagnosis of exudative pleurisy of tuberculous etiology using wedge-shaped dehydration of pleural fluid / A.V. Kalashnikov, S.A. Kalashnikov, A.N. Goryachev / Patent for invention RUS 2566719 22.07.2013.

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儿童复发性呼吸道感染和贫血:回顾 RECURRENT RESPIRATORY INFECTIONS AND ANEMIA IN CHILDREN: REVIEW

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反复呼吸道感染(RRI)是儿科中最常遇到和讨论的话题,导致各种并发症。 有许多因素会影响呼吸道感染的频率。 根据现代数据,贫血是导致儿童反复呼吸道疾病和继发性免疫缺陷的原因之一,贫血在学龄前和学龄儿童中很常见。 在大多数情况下,儿童贫血是由铁缺乏引起的。 在儿童时期,铁缺乏症会影响发育迟缓,增加急性呼吸道感染的频率,并降低免疫力。 这篇文献综述将研究贫血与免疫力之间的关系。

关键词:反复呼吸道感染,免疫力,贫血,铁缺乏症,儿童

Abstract. Recurrent respiratory infections (RRI) are the most frequently encountered and discussed topic in Pediatrics, which leads to various complications. There are many factors that affect the frequency of respiratory infections. According to modern data, one of the causes of recurrent respiratory diseases and secondary immunodeficiency in children is anemia, which is common among children of preschool and school age. In most cases, anemia in children is caused by iron deficiency. In childhood, iron deficiency affects growth retardation, increases the frequency of acute respiratory infections, and reduces immunity. This literature review will examine the relationship between anemia and immunity.

Keywords: recurrent respiratory infections, immunity, anemia, iron deficiency, children

Respiratory tract infections are the most frequent and common problem among children. Respiratory diseases – one of the leading causes of death and hospitali-

zation in children and require careful attention [1,2]. RRI – defined as the multiplicity of respiratory diseases more than six times a year [3-5]. Frequent visits to doctors, stay in the hospitals affect the quality of life of the child. Chronic foci of infection are formed, and many antibacterial drugs are prescribed, despite the fact that the majority of RRI in 70-80% have a viral etiology [6]. Risk factors that affect the development of RRI in children: early daycare attendance, a large number of people in the family, allergy/atopy of the child, vitamin D deficiency, anemia, prematurity in the anamnesis, early termination of breastfeeding, environmental factors, dampness at home and mold, smoking parents, poor economic and social conditions, intense physical activity and stress [7,8].

Anemia is one of the most common problems in the world, which is also found among children and pregnant women. According to the World Health Organization (WHO), iron-deficiency anemia is common among the types of anemia [9]. Along with true iron deficiency anemia, there is a latent iron deficiency that reaches up to 30-40% in Europe, 20-40% in Central Asia, and 40-60% in some regions [11].

Iron in the human body plays an important role. It is involved in many metabolic processes, maintaining cell homeostasis. For instance, a sufficient supply of iron is necessary for the functioning of many biochemical processes, such as DNA synthesis, gene regulation, electron transfer reaction, oxygen binding and transport, and influence on cell growth and differentiation [12]

As mentioned earlier, iron is necessary for proper cell differentiation and growth. That is, iron is an important component for the enzymes that generate peroxide and nitrous oxide and is crucial for the proper enzymatic functioning of immune cells. Phagocytosis of macrophages is usually not dependent on the value of iron, but the antibacterial activity of these macrophages is weakened. Neutrophils have reduced activity of the iron-containing enzyme myeloperoxidase, which is responsible for the intracellular destruction of pathogens. As a result, low intracellular antibacterial activity of neutrophils is the cause of repeated acute respiratory diseases. In one prospective study, it was found that patients with iron deficiency anemia had reduced phagocytic activity [13]. Iron deficiency leads to a decrease in the proliferation of T-lymphocytes, interleukin-2, the production of secretory immunoglobulin A and interferon-gamma, and a violation of humoral immunity [14-16].

According to the literature, iron deficiency anemia is characterized by growth retardation, low body weight, and an imbalance of the immune system, which in turn leads to RRI, intestinal infections, and prolonged bacterial infection [17]. In conditions of iron deficiency, microorganisms increase their virulence. For example, in respiratory infections, pathogenic microorganisms can damage the lung tissue by penetrating it, and the proliferation of pathogens requires the consumption of a large amount of iron [18,19]. In other words, there is competition for the

consumption of iron (III) ions between the host cells and the pathogen [20]. At a critical level of low iron, the risk of tuberculosis, acute respiratory diseases, pneumonia, and HIV infections increases [21]

The prevalence of iron metabolism disorders is more common at the age of 2 to 5 years, among which the majority of children with RRI [22].

In a randomized controlled trial conducted in 2006, children aged 9 months to 16 years in the main group had anemia of 74%, in the control group - 33%. Of these, iron deficiency anemia in the main group was 80%, and in the control group 82%, respectively. Those who were found to have anemia were 5.7 times more susceptible to lower respiratory tract infections, compared to those who did not have anemia [23].

Another randomized, controlled, double-blind study (Sri Lanka) compared the association between anemia and recurrent respiratory infections. The age of the children ranged from 5 to 10 years. The main group, children with frequent respiratory infections (n=179), the control group with rare respiratory infections (n=184). The overall prevalence of anemia was 52.6%. Both groups received iron sulfate at a dosage of 60 mg, some with a placebo for 8 weeks. As a result, the level of hemoglobin and serum ferritin (p<0.001) was increased in both groups, except for those who received placebo. As a result, those who received iron supplements significantly decreased the incidence of respiratory and intestinal infections [24].

Meta-regression analysis showed that the risk of infectious diseases is associated with baseline hemoglobin levels. Stratified analysis also showed an increased risk of infection in children with hemoglobin levels below 100 g / L [25].

Daily oral supplementation of iron supplements is a recommended strategy for preventing iron-deficiency anemia and improving immunity. Three systematic reviews and a meta-analysis have shown that daily iron supplementation significantly reduces the risk of iron deficiency in children of 4-13 months and school age [26,27], and another systematic review in children from 2 to 5 years also noted an increase in hemoglobin and ferritin levels [28]. There has been recent interest in intermittent oral iron supplementation regimens (1,2 or 3 times a week) as a safer alternative to daily iron supplementation and had the same efficacy [29].

In conclusion, we can identify the relationship between anemia and the immune system. Iron deficiency increases susceptibility to frequent respiratory infections. Iron deficiency is particularly common in children with RRI. If the problem with iron deficiency anemia is eliminated, it may be possible to restore the links of the immune system and reduce the frequency of respiratory infections, which requires further careful research.

References

1. Jaakkola J. J. K. et al. Preterm delivery and asthma: a systematic review and meta-analysis //Journal of Allergy and Clinical Immunology. -2006. - T.118. $-N_{2}$. 4. -C. 823-830.

2. Membrila-Mondragon J., Staines-Boone A.T., Sanchez-Sanchez L.M. et al.. "Pulmonary complications in pediatric patients with primary immunodeficiency", Gaceta Medica de Mexico, Mar-Apr 2015, pp.157-163.

3. Woicka-Kolejwa K.et al Food allergy is associate with recurrent respiratory tract infections during childhood//Postepy Dermatol Allergol-2016. Vol.33.-P.109-113

4. Montella S., Corcione A., Santamaria F. Recurrent pneumonia in children: a reasoned diagnostic approach and a single centre experience //International journal of molecular sciences. $-2017. -T. 18. -N_{2}. 2. -C. 296.$

5. Cohen R. et al. Recurrent respiratory tract infections: how should we investigate and treat? //Archives de pediatrie: organe officiel de la Societe francaise de pediatrie. $-2005. -T. 12. -N_{\odot}. 2. -C. 183-190.$

6. Heikkinen T., Järvinen A. The common cold //The Lancet. – 2003. – T. 361. – №. 9351. – C. 51-59.

7. Ballow M. Approach to the patient with recurrent infections // Clin. Rev. Allergy Immunol. 2008. Vol. 34, № 2. P. 129–140.

8. Cohen R. et al. Recurrent respiratory tract infections: How should we investigate and treat? // Arch. Pediatr. 2005. Vol. 12, N 2. P. 183–190.

9. McLean E. et al. Worldwide prevalence of anaemia, WHO Vitamin and Mineral Nutrition Information System, 1993-2005 // Public Health Nutr. 2009. Vol. 12, N_{2} 4. P. 444–454.

10. TW health O. The global prevalence of anaemia in 2011 // Who. 2011. P. 1-48.

11. Who, Chan M. Haemoglobin concentrations for the diagnosis of anaemia and assessment of severity // Geneva, Switz. World Heal. Organ. 2011. P. 1–6.

12. Grantham-McGregor S., Ani C. Iron-deficiency anemia: reexamining the nature and magnitude of the public health problem // J Nutr. 2001. Vol. $131, N_{2}2.P.649S-668S$.

13. Ekiz C. et al. The effect of iron deficiency anemia on the function of the immune system. 2005. P. 579–583.

14. Wang L., Cherayil B.J. Ironing out the wrinkles in the host defence: interaction between iron homeostasis and innate immunity// J Innate Immunol.2009;5:455–64.

15. Kuvibidila S.R., Gardner R., Velez R., et al. Iron deficiency, but not underfeeding reduces secretion of interferon-gamma by nitrogen-activated murin

spleen cells// Cytokin 2010; 52(3): 230-7.

16. Berglund S. Iron Supplements Reduce the Risk of Iron Deficiency Anemia in Marginally Low Birth Weight Infants / S. Berglund, B. Westrup, M.Domellöf// Pediatrics.-2010.126(4):e874-e883.

17. Carter R. C. Iron Deficiency Anemia and Cognitive Function in Infancy / R. Colin Carter, Joseph L. Jacobson, Matthew J. Burden, RinatArmony-Sivan, Neil C. Dodge, Mary Lu Angelilli, Betsy Lozoff, Sandra W. Jacobson//Pediatrics.– 2010.126(2):e427-e434.

18. Oppenheimer S.J. Iron-Deficiency Anemia : Reexamining the Nature and Magnitude of the Public Health Problem Iron and Its Relation to Immunity and Infectious Disease 1, 2. 2018. N February. P. 616–635.

19. Miethke M., Marahiel M.A. Siderophore-based iron acquisition and pathogen control // Microbiol. Mol.Biol. Rev. – 2007. – Vol. 71, N 3. – P. 413-451.

20. Fischbach M.A. et al. How pathogenic bacteria evade mammalian sabotage in the battle for iron. 2006. Vol. 2, N_{2} 3. P. 132–138.

21. Mcdermid J.M., Prentice A.M. Iron and infection : effects of host iron status and the iron-regulatory genes haptoglobin and NRAMP1 (SLC11A1) on host – pathogen interactions in tuberculosis and HIV. 2006. Vol. 524. P.503–524.

22. Bartlett J.G. Management of respiratory tract infection; 3rd Ed. Philadelphia, 2001; 178–182.

23. Ramakrishnan K., Harish P.S. Hemoglobin Level as a Risk Factor for Lower Respiratory Tract Infections. 2006. Vol. 73, № 484. P. 35–37.

24. Silva A. De et al. Iron supplementation improves iron status and reduces morbidity in children with or without upper respiratory tract infections : a randomized controlled study in Colombo , Sri Lanka 1 - 3. 2003. P. 234–241.

25. Sachdev H.P.S. Effect of iron supplementation on incidence of infectious illness in children : systematic review. 2002. Vol. 325, № November.

26. Pasricha S.R. et al. Effect of daily iron supplementation on health in children aged 4-23 months: A systematic review and meta-analysis of randomised controlled trials // Lancet Glob. Heal. Pasricha et al. Open Access article distributed under the terms CC BY-NC-SA, 2013. Vol. 1, N_{2} 2. P. e77–e86.

27. Gray-Donald K. Iron supplementation for children: Safety in all settings is not clear // Cmaj. 2013. Vol. 185, N 17. P. 1477–1478.

28. Thompson J., Biggs B.A., Pasricha S.R. Effects of daily iron supplementation in 2- to 5-year-old children: Systematic review and meta-analysis // Pediatrics. 2013. Vol. 131, № 4. P. 739–753.

29. Hawamdeh H.M., Rawashdeh M., Aughsteen A.A. Comparison between once weekly, twice weekly, and daily oral iron therapy in Jordanian children suffering from iron deficiency anemia // Matern. Child Health J. 2013. Vol. 17, $N \ge 2$. P. 368–373.

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用过氧化合物对植物原料进行脱木素 DELIGNIFICATION OF PLANT RAW MATERIALS WITH PEROXO COMPOUNDS

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已经研究了通过硫酸, 钛和二氧化硅, 高岭土等各种催化剂将过氧化氢 与乙酸酰化形成过乙酸的过程。将试剂的水溶液在60℃的恒定温度下加热 4.5小时,并分析残留的过氧化氢和形成的过乙酸的含量。二氧化硅不影 响该过程的结果。在二氧化钛存在下, 观察到过氧化氢强烈分解。使用硫 酸作为催化剂,可获得最高浓度的过氧乙酸0.81 g-mol / dm3。使用该溶 液,在90℃下进行130分钟的麦秸的蒸煮(氧化脱木素)。获得了工业纤维 素, 产率为57.4%, 木质素的质量分数为6.8%, 其性能与硬木的硫酸纤维 素相当。

关键词: 秸秆, 脱木质素, 催化剂, 纤维素, 过氧乙酸, 二氧化钛, 二 氧化硅, 高岭土, 过氧化氢

Abstract. The process of the formation of peracetic acid by acylation of hydrogen peroxide with acetic acid with various catalysts - sulfuric acid, titanium and silicon dioxides, kaolin has been studied. The aqueous solution of the reagents was heated at a constant temperature of 60°C for 4.5 hours and analyzed for the content of residual hydrogen peroxide and formed peracetic acid. Silicon dioxide did not affect the results of the process. In the presence of titanium dioxide, an intense decomposition of hydrogen peroxide was observed. The highest concentration of peracetic acid, 0.81 g-mol/dm³, was obtained using sulfuric acid as a catalyst. With this solution, cooking (oxidative delignification) of wheat straw was performed for 130 minutes at 90°C. Technical cellulose was obtained with a yield of 57.4% and a mass fraction of lignin of 6.8%, whose properties are comparable to sulfate cellulose from hardwood.

Keywords: straw, delignification, catalysts, cellulose, peracetic acid, titanium dioxide, silicon dioxide, kaolin, hydrogen peroxide

All over the world, estimates of methods for producing cellulose have changed significantly. The tightening of requirements for the quality of effluents and gas emissions from industrial enterprises has raised the question of the need to abandon technologies that use sulfur and chlorine compounds in the near future. This stimulates the search for alternative ways of delignification that are more environmentally friendly.

Peroxide delignification methods solve the main problem - the exclusion of sulfur compounds from the technological process [1,2]. The reagents used are not hazardous to the environment. This is the main advantage of the discussed methods over the sulfate and sulfite technologies used in the industry.

Among other advantages of peroxide cooking, the following should be noted: the possibility of obtaining cellulose semi-finished products both with a high yield and with high indicators of mechanical strength, due to the selectivity of catalyzed delignification; the possibility of producing high-quality reactive cellulose suitable for chemical processing; a simplified scheme for the regeneration of spent cooking solutions that do not contain a significant amount of minerals; implementation of the delignification process at temperatures below 100°C and at atmospheric pressure, which can significantly reduce the cost of cooking equipment and operating costs.

Already in the course of cooking, peroxidized cellulose acquires a brightness sufficient to include this fibrous semi-finished product in the composition of many types of paper and cardboard products. In addition, it is very easily bleached with ECF and TCF to a high whiteness, which makes the entire process of producing high quality peroxide pulp more environmentally friendly compared to traditional technologies.

A significant place in our research is given to the processing of cereal straw [3]. Interest in this plant raw material is due, on the one hand, to the shortage of wood raw materials, on the other hand, to the large volume of production of agricultural crops in many countries of the world. Cellulose from the stalks of the most common cereals (wheat, rye, oats, rice, etc.) is comparable in quality to short-fiber cellulose from hardwood, it has long been used by the pulp and paper industry in a number of countries as an annually renewable plant raw material. Studies have established the possibility of obtaining high-quality peroxide cellulose for various purposes (including dietary fiber and microcrystalline cellulose) from wheat straw - the most large-tonnage by-product of grain production in Russia.

The essence of the discussed method for producing technical cellulose is the processing of plant materials with a solution of hydrogen peroxide and acetic acid. In this system, acetic acid undergoes a catalyzed oxidation to peracetic acid, which, in its middle, oxidizes lignin, converting it into a soluble state. Sulfuric acid in combination with tungstic acid, tungstate and sodium molybdate [3], and

titanium dioxide [4] is used as catalysts.

This method of delignification (boiling) has a number of disadvantages.

First, the optimal parameters for the formation of peracetic acid and the oxidation of lignin do not coincide in temperature: for rapid delignification, the temperature should be 90 ... 95°C, and for minimal losses of hydrogen peroxide due to side reactions, 50 ... 60°C. This does not allow to fully realize the advantages of the optimal conditions for the formation of peracetic acid.

Secondly, at the beginning of cooking, the concentration of peracetic acid is close to zero, which is a limiting factor in the rate of lignin oxidation. By the end of the cooking (exhaustive delignification), the concentration of peracetic acid has not yet reached its maximum value. The consequence of this is both an unjustifiably large increase in the duration of cooking, and ineffective use of the oxidizing agent.

Thirdly, sulfuric acid at elevated temperatures catalyzes the hydrolytic decomposition of readily hydrolyzable polysaccharides, which leads to a decrease in the yield of technical cellulose from plant raw materials.

The two-stage process assumes separate carrying out of the reactions of formation of peracetic acid (first stage) and oxidative destruction of lignin (second stage) at different temperatures [3].

According to published data [4], the use of titanium dioxide as a catalyst can reduce the concentration of sulfuric acid. In various fields of chemical technology, cheaper heterogeneous catalysts are also used - silicon dioxide SiO_2 , kaolin $SiO_2 \cdot Al_2O_3$, and others.

We have compared the efficiency of the listed catalysts in the generation of peracetic acid in the "hydrogen peroxide - acetic acid - water - catalyst" system with the subsequent use of the resulting solution for the delignification of wheat straw.

The cooking solution was prepared by mixing 12 cm³ of glacial acetic acid, 15.5 cm³ of an aqueous solution of hydrogen peroxide with a concentration of 22.8%, 0.5 g of a heterogeneous catalyst, 0.1 cm³ of 72% sulfuric acid. Some of the experiments were carried out without the addition of catalysts. The mixture was heated for 4.5 hours at 60°C with vigorous stirring.

During the experiment, two factors were varied.

Factor A - homogeneous catalyst (sulfuric acid, two levels of variation):

 A_1 – without sulfuric acid;

 A_2 – with the addition of sulfuric acid.

Factor B - heterogeneous catalyst (four levels of variation):

B₁ – without heterogeneous catalyst;

 B_2^{1} – silicon dioxide SiO₂;

 B_{3}^{2} – titanium dioxide Ti O_{2} ;

 B_4 – kaolin SiO₂·Al₂O₃.

The experimental results were characterized by the following output parameters:

 Y_1 – decrease in the concentration of hydrogen peroxide in solution, g-mol/ dm³;

 Y_2 – concentration of peracetic acid in solution at the end of the process, g-mol/dm³;

 $Y_3 = 100 \cdot Y_2/Y_1$ – the proportion of hydrogen peroxide consumed for the formation of peracetic acid, %.

Analysis of variance (experimental design, statistical processing, graph) was performed using Statgraphics Centurion, v. XVI. The values of the variable factors and the results of the experiment (average values from two experiments) are shown in table 1.

Mode numbers	Factors		Output parameters		
	Α	В	Y ₁ , g-mol/dm ³	Y ₂ , g-mol/dm ³	Y ₃ , %
1	A,	B,	0,30	0,30	100,0
2	A	B,	0,53	0,30	56,6
3	A,	B ₃	0,83	0,05	5,6
4	A	B_4	0,34	0,04	11,8
5	A ₂	B	1,06	0,81	76,4
6	A ₂	B,	1,16	0,70	60,8
7	A_2^2	B ₂	2,38	0,16	6,7
8	A_2^2	B ₄	2,16	0,16	7,4

Table 1. Experimental conditions and results

The dependence of the concentration of the formed peracetic acid on the variable reaction factors is clearly shown in the figure. Acylation of hydrogen peroxide with acetic acid is possible without the participation of catalysts. In this case, peroxide is not consumed for side reactions, but the achieved concentration of the target product is low (table 1, mode 1). Sulfuric acid catalyzes the formation of peracetic acid, while preventing large losses of peroxide due to its decomposition into water and oxygen (table 1, mode 5). The addition of silicon dioxide had practically no effect on the reaction result both in the presence of sulfuric acid and without it. The addition of titanium dioxide or kaolin is accompanied by intensive decomposition of hydrogen peroxide, only a small part of it is spent on the formation of peracetic acid (table 1, modes 3, 4, 7, 8).



Dependence of the concentration of the formed peracetic acid Y_2 on the variable factors A and B (mean values and 95% confidence intervals)

In order to check the suitability of the obtained solutions for the delignification of plant raw materials, a test cooking of wheat straw was performed. Crushed straw stalks were boiled with the solution obtained according to mode 5 (table 1). Cooking conditions: liquid module 6; temperature 90°C; duration 130 min. The resulting cellulose was milled in a CRA apparatus for 5 min; paper casts were made on a laboratory sheet-molding apparatus. The cellulose properties are shown in Table 2.

Characteristics	Properties
Technical cellulose yield,%	57,4
Lack of penetration	absent
Mass fraction of lignin in cellulose,%	6,8
Cellulose grinding degree, °SR	41
Characteristics of paper castings:	
- weight of 1 m ² , g	75
- thickness, mm	0,014
- density, g/cm ³	0,549
- whiteness,%	86
- breaking length, km	7,75
- resistance to bursting, kPa	265

Table 2. Properties of cellulose

The results of the experiment demonstrated the possibility of delignification of plant materials (for example, wheat straw) using a two-stage technological process. The first stage includes the preparation of the cooking solution "hydrogen peroxide - acetic acid - peracetic acid - sulfuric acid (catalytic amount) - water". The second stage is cooking the crushed raw materials at temperatures below 100°C and atmospheric pressure. In terms of basic parameters, straw cellulose is close to the properties of sulphate cellulose from hardwood.

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References

1. Pen R.Z., Karetnikova N.V. Catalyzed delignification of wood with hydrogen peroxide and peroxyacids (review) // Chemistry of vegetable raw materials. 2005, N° 3, P. 61-73.

2. Pen R.Z., Byvshev A.V., Polyutov A.A. Delignification of plant materials with hydrogen peroxide: an ecological aspect // Bulletin of the Krasnoyarsk State Agrarian University, 2008, Iss. 4, P. 278-280.

3. Pen R., Karetnikova N., Shapiro I. Peroxide cellulose. Delignification of plant raw materials with peroxo compounds (Monograph). Saarbrücken (Germany), LAMBERT Academic Publishing, 2013. 245 P.

4. Kuznetsov B.N., Kuznetsova S.A., Yatsenkova O.V., Danilov V.G. Cellulose production by catalytic delignification with hydrogen peroxide. Krasnoyarsk: Siberian Federal University, 2014. 146 P.

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多功能可编程支架,用于微处理器继电保护建模 MULTIFUNCTIONAL PROGRAMMABLE STAND FOR MICROPROCESSOR RELAY PROTECTION MODELING

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本文提出了基于具有灵活程序逻辑的多功能系统的基于微处理器的电流 继电保护算法的数学和计算机建模问题。 工作中的主要注意力集中在三个 方面:1)多功能系统及其主要组件的工作原理2)继电保护当前机构的计 算机建模3)使用多功能测试当前机构的算法 复杂。

Abstract. The paper presents the issues of mathematical and computer modeling of algorithms for microprocessor-based current relay protection based on a multifunctional complex with flexible program logic. The main attention in the work is paid to three points: 1) The principle of operation of the multifunctional complex and its main components 2) Computer modeling of the current organ of relay protection 3) Testing the developed algorithm of the current organ using the multifunctional complex.

Nowadays, industrial microcontrollers are becoming more widespread, which creates new approaches to the implementation of relay protection and automation (RPA). It becomes possible to develop protection based on mathematical algorithms using numerical methods. Registration and analysis of parameters of normal, emergency and post-emergency modes is fundamental in this process.

The purpose of this work is to develop a multifunctional complex for modeling the operation of microprocessor relay protection devices, test it on the example of a relay protection current organ, determine the possibilities of using a multifunctional complex for modeling other relay protection devices.

To achieve this goal, a multifunctional complex was developed, based on an industrial logic controller (ILC) XP-8000-CE6 manufactured by ICPDAS, operating on the basis of the Windows Embedded CE 6.0 operating system, a 16-bit analog input module I-8014W connected to it current module DN-843I-CT-50 and discrete input-output module I-8042W. The multifunctional complex is designed to perform the functions of various local relay protection and emergency control devices installed at electric power facilities. The complex performs separate measurements of currents in the circuits of all circuit breakers monitored by the device, as well as all monitored voltages at the installation site.

The block diagram of the complex is shown in fig. 1.

Complex composition

All elements of the complex and their connections are schematically shown in the figure below.





The composition of the multifunctional complex:

- 1,2 Power supply
- 3-Microcontroller
- 4 Display
- 5 Switch
- 6 Terminal block for output relays
- 7-A set of relays
- 8 Terminal board DN-37-381-A
- 9-3-channel current transducer DN-843I-CT-50
- 10 Terminal block for input current and voltage circuits
- 11 8-channel voltage divider DN-848VI-150V

Modules installed on the controller:

- 1-3 Discrete input-output module I-8042W
- 4-7 Analog input module I-8014W

Red - power circuits, blue - analog circuits, green - current and voltage circuits, yellow - digital circuits.

Power supply 1 is connected to current converters 9 and voltage 11, power supply 2 is connected to controller 3. Switch 6 and relays on terminal block 6 are connected via terminal block 8 to module 3 of controller 3. Module 4 is connected to current converters 9 and voltage 11, which through terminal block 10 are connected to RETOM. Controller 3 is connected with an Ethernet cable to a PC acting as a server. The rest of the connections are not used and are not considered in this work.

An algorithm for the current organ was developed according to the principles of operation described in [1] and [2]. The current organ is programmed in C^{++} . The operating algorithm of the current organ is shown in fig. 2.



Fig. 2 – Algorithm of the current organ

At the beginning of its operation, the algorithm receives the setpoint value and starts an endless cycle, in which the current value at the ADC input is read, written to the array and compared with the setpoint. If the generated trigger condition is met, then the cycle is terminated, the array is transferred to the server, and a signal is generated to the output relay.

In the first part of the algorithm, the DN-843I-CT-50 current module converts an input current in the range of +/- 50 A into a proportional DC voltage with a range of +/- 4 V. The declared accuracy of the module is 1% of the full voltage range.

The output of the current module is connected to the analog input / output module of the I-8014W controller, which digitizes the signal for further processing by the XP-8000-CE6 controller.

In the second part of the algorithm, the programmed logic of the HZ-8000-CE6 controller forms a data array from the obtained values and compares them with the setpoint in a loop.

The algorithm of the proposed model of the current organ allows detecting the short-circuit current and timely disconnecting the damaged section of the network.

Testing of the developed current organ based on a multifunctional complex with flexible program logic was carried out using RETOM-41.

An oscillogram of tests of the current organ was obtained (fig. 3).



Fig. 3 – Oscillogram of tests of the current organ.

The developed complex can be used to implement protections with more complex mathematical models of controlled objects (remote measuring algorithms, protection against single-phase ground faults, differential protection, solution of filtration problems), which require numerical methods to operate. It can be used to test both existing and new algorithms for relay protection.

References

1. Ovcharenko N.I. Hardware and software elements of automatic devices of power systems. – M.: Publishing house of the SC ENAS, 2004. - 512 P.: Ill.

2. Shneerson E. M. – Digital relay protection. – M. Energoatomizdat, 2007. 549 P.

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农业技术过程中耕作机构的数字化原型 DIGITAL PROTOTYPES OF TILLAGE WORKING BODIES FOR TECHNOLOGICAL PROCESSES IN AGRICULTURE

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凿耕机耕作工具可快速拆卸固定的完整数字样机以可拆卸单元的形式提供。可拆卸组件的数字原型的零件以装配体分开的零件和装配体的形式表示,按连接位置和旋转位置划分。 根据气化模型,通过铸造在金属中获得了单独的零件。

关键字: 数字样机, 快速释放凿架, 气化铸件。

Abstract: The completed digital prototype of the quick-detachable fastening of the chisel tillage working tool is presented as a detachable unit. The parts of the digital prototype of the detachable assembly are presented in the form of assembly separate parts and assembled assemblies, divided by the places of connections and places of rotation. Separate parts were obtained in metal by casting according to gasified models.

Keywords: Digital prototype, quick-release chisel rack mount, gasified casting.

Introduction

A digital prototype is a virtual prototype of a finished product that is used to validate and optimize it. Digital prototyping is the only way to reduce the need for expensive physical prototypes for agricultural research. Moreover, physical prototypes do not give an idea of the processes that are hidden from observation by the thickness of the earth. Modern methods of X-rays, lasers, spectrometers and spectrophotometers of fluoroscopy are still at the stage of widespread adoption. About ten years have passed since the beginning of their use, but to date, no three-dimensional picture of the structure of the soil has been obtained. Moreover, soil scientists are discovering new properties of soils. If you make your own tillage machines for each type of soil, then the list of products will be redundant and it will be almost impossible to sell them, since soils even in one field can have a different structure.

The purpose of research – to develop general guidelines for digital prototyping for technological processes in agriculture.

Object of study – the process of interaction of the active surface of the working bodies with soil particles, represented by digital prototypes of tillage machines and a given model of mechanical behavior of solid particles of bulk materials or by the method of discrete elements.

Subject of study – identification of patterns of changes in soil properties depending on the digital prototype in the process of simulation.

Scientific novelty. The use of digital prototypes of tillage machines allows for continuous improvement of the digital model of the object, process and technology.

Research objectives.

1. Develop digital prototypes of chisel tillage working bodies for technological processes in agriculture.

2. Develop digital prototypes of quick-detachable devices for tillage working implements, similar to the Quick Coupler device, for technological processes in agriculture.

3. Embody the prototype in metal by casting on gasified models.

Materials and methods

Methods of digitalization, when solving the problems of identifying the optimal shape of the active surface rolling at an angle of attack and having a complex shape of the working body for farming technologies, were promulgated during the presentation of the dissertation of cand. tech. sci. S.G. Shchukin, but the scientific community did not show curiosity towards them, did not support their development [1].

Devices that are commonly called quick couplers, began to be used about forty years ago in Europe. In Russia they are known under the name "quick disconnect connection". We made a digital prototype of chisel tillage implements installed through a quick-detachable connection (quick coupler) on a single frame. The prototype of the quick-detachable connection is shown in fig. 1 in an exploded view with a trace of the installed parts. A patent is pending for the quick-detachable connection [2].

Graphically, a prototype of a quick-detachable chisel attachment with a lance-国际会议 175 shaped attachment is presented in the form of a device securely fixed to the machine frame beam. The prototype on the frame is: axonometric projection (front view) (fig. 2a); rear view (fig. 2b); side view (fig. 2c); front view (fig. 2 d). The proposed digital prototype of the fastening mechanism consists of a chisel stand 6 with an adapter and two parts of a detachable unit 7 and 8. All parts of the prototype are interconnected on one side



Figure 1 – An expended view of a quick-detachable attachment equipped with a chisel stand of the tillage implement. A single quick-detachable mount consists of a set of parts: 1 – chisel rack of the working body; 2 – lancet paw; 3 – a thrust ring; 4 – chisel head; 5 – clamp for fastening the headstock; 6 – adapter of the working body; 7 – the first part of the detachable unit; 8 – the second part of the detachable unit; 9 – rotary lock; 10 – bar (fragment) of the frame of the tillage machine; 11 – bolts; 12 – nuts; 13 – latch rotation axis; 14 – washer persistent of the latch rotation axis; 15 – shear pin with notches; 16 – axis connecting the first 7 and the second 8 parts into a detachable unit; 17 – thrust washer, axis connecting the first 7 and second 8 parts; 22 – rectangular, with rounded edges, pin that fixes the first 7 and the second 8 in the detachable unit of the part, and the adapter 6 and the detachable unit, which is hammered by its beveled part between the parts between the parts, is used as a barb at the stage of assembling the quick-detachable unit, with its reliable fixation on the bar frame 10, and installing a cylindrical shear pin 15



Figure 2 – Quick-detachable fastening of the chisel rack of the tillage working body: a – axonometric projection (front view); b – rear view; c – side view; d – front view; 1 – chisel rack of the working body; 2 – lancet paw; 3 – a thrust ring; 4 – chisel head; 5 – clamp for fastening the headstock; 6 – adapter of the working body; 7 – the first part of the detachable unit; 8 – the second part of the detachable unit; 9 – rotary lock; 10 – bar (fragment) of the machine frame.

bolted connection of bolts 11 and nuts 12. On the other side with a shear pin 15 with notches. The purpose of the shear pin is to destroy its structure when the chisel paw 6 with the adapter of the working body hits an insurmountable obstacle. In the event of such a collision, the entire mechanism can be kept intact by destruction of the shear pin 15 along the existing notches. After the destruction of the shear pin 15, the quick-detachable fastening is opened - the adapter of the working body 6 and the first 7 parts of the detachable unit and the second part 8 of the detachable unit connected into a single unit, which are held in the assembly by the axis 16 and rectangular, with rounded edges, pin 22.

Moreover, in fig. 3, a prototype of a quick-release chisel attachment is shown after encountering an insurmountable obstacle and the destruction of the shear pin 15, which is held



Figure 3 – The position of the proposed quick-release fastener, after the destruction of the safety shear pin 15 (shown not destroyed along the slots of a smaller diameter and not installed in the holes 18 on the device), from excessive load inside the soil applied to the chisel rack of the working body. An insurmountable obstacle causes the safety shear pin 15 to collapse and opens the mechanism holding the quick release fastener to the frame. The position

of the parts of the prototype of the quick-release fastener is shown after meeting an insurmountable obstacle of the chisel rack inside the soil: $a-{\rm side}$

view, (shear pin, shown not destroyed, not installed in hole 18 of the device); b – axonometric projection, (shear pin, shown not destroyed, not installed in the 18th hole of the device); 1 – chisel rack of the working body; 2 – lancet paw; 3 – a thrust ring; 4 – chisel head; 5 – clamp for fastening the headstock; 6 – adapter of the working body; 7 – the first part of the detachable unit; 8 – the second part of the detachable unit; 9 – rotary lock; 10 – bar of the machine frame; 14 – thrust washer of the latch rotation axis; 15 – notched shear pin; 17 – thrust washer, the axis connecting the first 7 and the second 8 parts in a detachable unit; 18 – oblong hole for installing a shear pin.



Figure 4 – Quick dismantling of the quick–detachable fastener from the machine frame bar after removing or destroying the shear pin: a – front view, section A–A; b – side view, denoted detail view C; c – projection of section A–A (enlarged), detail view B is indicated; d – detail view B (enlarged), indicated detail view D; e – detail view C (enlarged); f – detail view D (enlarged). Details are given: 1 – chisel stand of the working body; 2 – lancet paw; 3 – a thrust ring; 4 – chisel head; 5 – a clamp from the headstock attachment; 6 – adapter of the working body; 7 – the first part of the detachable unit; 8 – the second part of the detachable unit; 9 – rotary lock; 10 – bar of the frame of the tillage machine; 11 – bolts; 12 – nuts; 13 – latch rotation axis; 14 – thrust washer of the latch

rotation axis; 12 - nuts; 13 - latch rotation axis; 14 - thrust washer of the latch rotation axis; 15 - notched shear pin; 16 - the axis connecting the first 7 and the second 8 parts in a detachable connection; 22 - rectangular, with rounded ribs, pin that fixes the first 7 and the second 8 in the detachable unit of the part, and is used as a bit, hammered by its beveled part between the parts adapter 6 and the detachable unit, at the stage of assembling the quick–detachable unit, with its reliable fixation on the beam of the frame 10, and the installation of a cylindrical shear pin 15; 26 - elongated coaxial hole for bolting in the adapter part 6; 27 elongated coaxial hole for bolting part 8; 26 - elongated coaxial hole for bolting

part 7.



Figure 5 – A rectangular pin with rounded ribs has a dual purpose: it is used when assembling a quick-detachable fastener from separate parts, and in addition, an adapter and an emphasis of the detachable unit for aligning coaxially the holes in which the shear pin is placed as the bit of the beveled part clogged between the parts. The images of the assembly are given: a – top view, section A-A is indicated, of the quick-detachable fastener at the stage of its assembly; b - side view of the quick-detachable fastener at the stage of its assembly; c - projection of section A-A (enlarged), detail view B is indicated; d – detail view B is shown (enlarged). Details are given: 1 – chisel stand of the working body; 2 - lancet paw; 3 - a thrust ring; 4 - chisel head; 5 - clamp for fastening the headstock; 6 – adapter of the working body; 7 – the first part of the detachable unit; 8 – the second part of the detachable unit; 9 – rotary lock; 10 – bar of the frame of the tillage machine; 11 – bolts; 12 – nuts; 13 – latch rotation axis; 14 - thrust washer of the latch rotation axis; 15 - notched shear pin; 16 – axis connecting the first 7 and the second 8 parts into a detachable unit; 17 - thrust washer, the axis connecting the first 7 and the second 8 parts in a detachable unit; 18 - hole for shear pin installation; 22 - rectangular, with rounded ribs, a pin that fixes the first 7 and the second 8. Using this pin 22 as a barb, hammering it with the beveled part (fig. 5) between the adapter parts 6 and 7 of the detachable unit, align hole 18 with a hole on the adapter 6. After that, an axle 16 is inserted into them, which connects the first 7 and the second 8 parts into a detachable unit.



Figure 6 – Fastening of various chisel designs to the frame should be presented as an innovative approach.

On the frame 10 and can only rotate around it. Thus, the chisel rack 1 of the working body remains on the frame. If it needs to be changed to another rack (fig. 4), then the axle 16 is removed, connecting the first 7 and the second 8 parts in the detachable unit and the rectangular pin 22 with rounded edges, which also fixes the first 7 and the second 8 in the detachable unit. The first 7 part of the detachable unit is opened and the quick-detachable fastener of the chisel can be freely removed from the frame. To install a quick-detachable chisel mount on the frame, there is no need to remove the bolted connection from bolts 11 and nuts 12. It is enough to pull out the axle 16 and pin 22.

Manufacturers will be interested in the production of a wide range of products that can be attached to the frame using a quick-release fastener. For example, in fig. 6, products are presented that can be installed on the frame using the first 7 part of the split unit and the second 8 part of the split unit.

A quick release is hard to imagine without using a digital prototype of a chisel quick release. The multitude of quick-release fasteners combined into a single unit, or presented with a break at the joints, as well as with rotation around circular axes, cannot be imagined without digital prototyping. It is possible to embody a prototype of a quick-detachable chisel fastener in metal by casting on gasified foam models. Other production methods (for example, the technologies for the manufacture of products from individual workpieces by welding in a conductor, which are massively widespread at operating machine-building enterprises) leave significant stresses between the parts to be welded even before the product is put into operation, which leads to the rapid destruction of the product itself. New mechanical engineering technologies based on gasified casting allow eliminating welded stresses in a product without additional heat treatment.



Figure 7 – A prototype of a quick–detachable chisel attachment made of foam and mounted on a subsoiler frame (rack not shown). Shown: a – adapter of the working body 6 and 7 the first part of the split unit; b – 7 the first part of the split unit and the adapter of the implement 6.



Figure 8 – The parts of the adapter of the working body 6 made of metal (the ring is cast for another purpose) of the first part of the detachable unit 7, interconnected by the axis 16.

Results and discussion

The modern strategy for the production of products, the repair of which during the life cycle will cost at least 40% of the cost of a new one, makes the main strategy for modernizing a product by installing new parts to replace those that have failed due to physical or moral wear and tear. Parts of the product or individual parts that are out of order can be disposed of by remelting and casting new products. Giving strength properties to the product is achieved by using steel type 110G13L (Hadfield steel) for casting. In this case, we get a product with a working body fig. 8 with a strength of about 500 MPa and a hardness of 180-200 HB. An additional advantage of such steel is the tendency to surface self-hardening (work hardening). The quick-release fastener can be used in other industries: for the assembled product shown in the photo (fig. 8), in the part that connects to the working body, a through hole is made for fastening, for example, with a hook. The part that serves to connect the quick-detachable attachment with the working body for tillage, it is advisable to cast with it together, as shown in fig. 6.

Conclusions

1. A digital prototype of chisel tillage working tools for technological processes in agriculture has been developed.

2. A digital prototype of a quick-detachable fastener has been developed, its foam model has been manufactured.

3. The digital prototype of the quick-release fastener is embodied in metal using the gasified casting technology.

References

1. Shchukin, Sergei Gennadievich. Improvement of compacting rotary working bodies using methods of modeling the process of their interaction with the soil: dissertation ... candidate of technical sciences: 05.20.01. - Krasnoobsk, 1999.-292

2. Quick release mount - № 2020105278/20(008037) Declared 06.02.2020.

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1 See for example: *Yakovets Yu.V.* Globalization and interaction of civilizations. – M.: Economy, 2001. – P.6–13.

2 *Manoilo A.V.* Information wars and psychological operations. Guide to action. M.: Hotline – Telecom, 2020. – P.262.

3 See: *A.A. Bartosh*. Hybrid wars in the US and NATO strategy. How to ensure Russia's national security in the face of unconventional threats and challenges // Independent military review. – October 10. 2014.