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**Методологія як інструмент  
 історичного пізнання:  
 актуально про очевидне**

**В. В. Іваненко**

доктор історичних наук, професор

ORCID: 0000–0002–4731–6702

Researcher ID: Q-6210–2017

[ivanenko\\_dnu@i.ua](mailto:ivanenko_dnu@i.ua)

*Дніпровський національний університет  
 імені Олеся Гончара,  
 проспект Гагаріна, 72, м. Дніпро,  
 Україна, 49010*

**Г. Г. Кривчик**

доктор історичних наук, професор

ORCID: 0000–0001–7504–4575

[gena.crivchik@ukr.net](mailto:gena.crivchik@ukr.net)

*Дніпровський національний університет  
 залізничного транспорту  
 імені академіка В. Лазаряна,  
 вулиця Лазаряна 2, м. Дніпро,  
 Україна, 49010*

**І. С. Накашидзе**

кандидат філологічних наук

ORCID: 0000–0002–7816–2339

[ir4ik87@meta.ua](mailto:ir4ik87@meta.ua)

*Дніпровський національний університет  
 залізничного транспорту  
 імені академіка В. Лазаряна,  
 вулиця Лазаряна 2, м. Дніпро,  
 Україна, 49010*

**Анотація.** *Мета статті* – актуалізація, уточнення й роз'яснення головних принципів і методів наукового дослідження у їх зв'язку і взаємозалежності (на прикладі історичних наук). *Методи дослідження*: аналітичний, історичний, компаративний, системно-структурний. *Основні результати*: в статті показаний взаємозв'язок принципів із загальнонауковими й спеціальними історичними методами. Здійснено уточнення й наведені приклади застосування останніх. *Практичне значення*: рекомендовано для застосування науковцями (насамперед молодими) для проведення історичних досліджень. *Оригінальність*: обґрунтована необхідність дотримання в історичних дослідженнях головних методологічних принципів. *Наукова новизна*: здійснено спробу «реабілітації» й актуалізації поняття «методологічний принцип», до якого включено етичні норми вченого, що базуються на загальнолюдських цінностях, сформульованих ще в Біблії. *Тип статті*: описова.

**Ключові слова:** доброчесність; наукова етика; всебічність; системність; конкретність; об'єктивність; історизм; діалектика; порівняльний метод.

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## **Методология как инструмент исторического познания: актуально об очевидном**

**В. В. Иваненко**

доктор исторических наук, профессор

ORCID: 0000–0002–4731–6702

Researcher ID: Q-6210–2017

[ivanenko\\_dnu@i.ua](mailto:ivanenko_dnu@i.ua)

*Днепропетровский национальный университет  
имени Олеса Гончара,  
проспект Гагарина, 72,  
г. Днепр, Украина, 49010*

**Г. Г. Кривчик**

доктор исторических наук, профессор

ORCID: 0000–0001–7504–4575

[gena.crivchik@ukr.net](mailto:gena.crivchik@ukr.net)

*Днепропетровский национальный университет  
железнодорожного транспорта  
имени академика В. Лазаряна,  
улица Лазаряна 2,  
г. Днепр, Украина, 49010*

**И. С. Накашидзе**

кандидат филологических наук

ORCID: 0000–0002–7816–2339

[ir4ik87@meta.ua](mailto:ir4ik87@meta.ua)

*Днепропетровский национальный университет  
железнодорожного транспорта  
имени академика В. Лазаряна,  
улица Лазаряна 2,  
г. Днепр, Украина, 49010*

**Аннотация.** *Цель статьи* – актуализация, уточнения и разъяснения основных принципов и методов научного исследования в их связи и взаимозависимости (на примере исторических наук). *Методы исследования:* аналитический, исторический, компаративный, системно-структурный. *Основные результаты:* в статье показана взаимосвязь принципов с общенаучными и специальными историческими методами. Осуществлено уточнение и приведены примеры применения последних. *Практическое значение:* рекомендовано для применения учеными (прежде всего молодыми) при проведении исторических исследований. *Оригинальность:* обоснована необходимость соблюдения в исторических исследованиях главных методологических принципов. *Научная новизна:* предпринята попытка «реабилитации» и актуализации понятия «методологический принцип», в который включены этические нормы ученого, основанные на общечеловеческих ценностях, сформулированных еще в Библии. *Тип статьи:* описательная.

**Ключевые слова:** добросовестность; научная этика; всесторонность; системность; конкретность; объективность; историзм; диалектика; сравнительный метод.

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**Methodology as a tool of historical knowledge: relevant about the obvious**

**V. V. Ivanenko**

Sc. D. (History), Professor  
 ORCID: 0000–0002–4731–6702  
 Researcher ID: Q-6210–2017  
[ivanenko\\_dnu@i.ua](mailto:ivanenko_dnu@i.ua)

*Oles Honchar Dnipro National University,  
 72 Gagarin avenue, Dnipro, Ukraine, 49010*

**H. H. Krivchik**

Sc. D. (History), Professor  
 ORCID: 0000–0001–7504–4575  
[gena.krivchik@ukr.net](mailto:gena.krivchik@ukr.net)

*Dnipro National University of Railway Transport  
 Named after Academician V. Lazaryan  
 2 Lazaryan str., Dnipro, Ukraine, 49010*

**I. S. Nakashydz**

Ph. D. (Philology)  
 ORCID: 0000–0002–7816–2339  
[ir4ik87@meta.ua](mailto:ir4ik87@meta.ua)

*Dnipro National University of Railway Transport  
 Named after Academician V. Lazaryan,  
 2 Lazaryan str., Dnipro, Ukraine, 49010*

**Abstract.** *The purpose of the article is to actualize and clarify the main principles and methods of scientific research in their relationship and interdependence (on example of historical sciences). Research methods:* analytical, historical, comparative and system-structural. *Main results:* the article illustrates the relationship of principles with general scientific and specific historical methods. Clarifications are made and examples of their use are given. *Coinciseconclusions:* Modern literature on methodology of science is presented mostly by the publications of methodical character. Such character of publications did not require consideration of problem aspects of methodology from their authors, in particular

question about interdependence of principles and methods of scientific research. In most works such important concept as «research principles» is not examined practically, with what we cannot agree categorically. In our opinion, methods as research instruments and principles as rules of using these instruments exist between subject and object of research. If methods are the researcher's tools, then the principles of the research are a kind of the ethical and professional code of a scientist. It consists of a number of professional principles which are based on: a) fundamental human ethical norms; b) scientific ethics; c) the special features of a particular science. In its turn, the general scientific principles are applied in various scientific fields, especially in the historical sciences. Among them are the principles of truth supremacy, deideologization, independence, dialectics, specificity, consistency, objectivity, immersion in the historical era (historicism), etc. It is also necessary to note a special role of dialectics in the scientific study, which serves as main principle and at the same time as the general scientific method. As a principle, dialectics is the essence of the world view of a scientist. As a method, dialectics helps the researcher to reveal the essence of phenomena and processes in all contradictions and interrelations of their components. Modern science possesses the wide arsenal of general and special methods. Their choice depends on scientific industry, object, aim and research tasks. A scientist must choose in this arsenal of facilities most effective and rational. If present methods are not enough, he should create the methods and use them accordance with all known methodological principles. The comparative method plays an important role in historical cognition. Firstly, comparison gives the opportunity to realize better the essence of phenomena. Secondly, when comparing a researcher goes beyond a narrow topic, uses additional empirical material and eventually expands his scientific outlook and creative range. The latter is one of the main indicators of the scholar's scientific qualification. *Practical significance:* It's recommended for use by scholars (especially young people) for historical research. *Originality:* the need to adhere to the main methodological principles in historical studies is substantiated. *Scientific novelty:* An attempt is made to «rehabilitate» and actualize the concept of «methodological principle», which includes the ethical standards of a scientist based on universal values formulated in the Bible. *Article type:* Descriptive.

**Keywords:** integrity; scientific ethics; comprehensiveness; systematicity; concreteness; objectivity; historicism; dialectic; comparative method.

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**Formulation of the Problem.** In the days of Ukrainian independence, the national historical science, in spite of the claims of some skeptics about its «deep crisis», in fact has significantly advanced the path of comprehensive rethinking and coverage from the standpoint of the latest theoretical and methodological approaches and based on mostly fresh sources of many significant events, phenomena, facts and figures of our past. A powerful layer of historical literature of various genres has been created, thanks to which a wide readership has received a new version of the Ukrainian historical process and has not for the first time touched, so to speak, numerous «naked nerves» of its past, especially in the relatively recent Soviet period.

However, in our opinion, at least some of the scientific researches in the form of published monographs, articles, documentary publications, dissertations, etc., do not impress with professional novelty, though thematically and conceptually they seem to be relevant, modern in form and content. First of all, it is obvious that, rather than scrupulous analytical study and reproduction of certain pages of history, they often use very questionable research tools, use a limited, selective «factual resource», in general, ordinary emotions predominate, to the accompaniment of which there is a banal re-evaluation and re-writing the past, production of new myths and legends instead of «old» ones. And this mythologically-legendary stream of literature has reached such a scale that almost often nothing is left from real historical paintings. Director of the Institute of History of Ukraine, academician V. A. Smoliy once shared his worrying thoughts: «We are concerned about the mythologization of historical knowledge... History is a high-sought-quality scientific product. It can be trampled by many profanes» (Osvita Ukrainy, 2013).

**Historiography.** In addition to the purely political influences on the formation of relevant thematic «priorities» and «instruments» of their implementation in contemporary Ukrainian historiography (and they are quite obvious!), the quality of part of historical works is negatively affected by unwillingness or inability of authors (especially the younger generation) to strictly adhere to established, verified in the practice mechanisms of historical knowledge, methodology of scientific research. Familiarization with the work of young researchers shows that not all of them demonstrate the proper level of scientific culture, the ability to generate creatively and adequately relevant research principles and methods in their work, to reveal how they directly work in solving specific scientific problems. Sometimes it seems that some of them generally write

about the methodology of their work only because it is «so required», and not to justify their own research technology, as it should be.

All this prompted the authors to write an article and give recommendations which can help young scientists master the arsenal of methodological techniques in historical research better, the skills of their practical and full application in scientific activity.

**Sources.** It seems that today we have many methodological publications. In particular, the monographs and textbooks of such famous Soviet historians as: M.A. Barg (Barg, 1984), I.D. Kovalchenko (Koval'chenko, 2003), B.G. Mogilnytsky (Mogil'nickij, 1989) and others, who at one time undoubtedly played a major role in the development of national science. However, it should be acknowledged that most of the works on the methodology of scientific research, created during the Soviet era, especially humanities, contain ideological stamps, such as class approaches and priority over other principles of communist partyism. Modern Ukrainian literature on methodology of science is mostly represented by publications of educational and methodical character: V.V. Kovalchuk (Kovalchuk, 2004), A.E. Konversky (Konverskyi, 2010), I.S. Pyatnitskaya-Pozdnyakova (Pyatnitska-Pozdnyakova, 2003), A.S. Filipenko (Filipenko, 2004), V.M. Sheiko (Sheiko, 2008), G. G. Krivchik (Krivchik, 2017), O. V. Mykhailuk (Mykhailuk, 2016) and others. Among foreign researchers who are working on methodology of history are A. Gulam (Gulam, 2016), T. Epstein (Epstein, 2018) etc. In most modern methodical works, such an important concept as «*principles* of scientific research» is in fact ignored, with which we cannot agree. In general, there has been a recent decline in scientific interest in science methodology issues. The famous Ukrainian scientist S.V. Mocherny stated that the situation with the study of methodological problems in Ukraine is clearly unsatisfactory (Mochernyj, 2001, p. 5).

**The Aim of the Study** is to actualize and clarify the main principles and methods of scientific research in their relationship and interdependence (on example of historical sciences).

**The Main Material and Results.** Methodology, in essence, is the doctrine of scientific methods of knowledge and their application on the basis of certain principles. Ignoring the principles, thinking about the archaic nature of this notion in modern methodology can negate any cognitive efforts of the researcher. For example, before entrusting a scalpel to a surgeon, he or she must be sure to instill basic moral and professional norms, and to learn certain rules for using this sharp



tool. In the scientific field, this axiom, though less noticeable, is just as valid and important.

Methodological principles are a kind of scientifically-ethical code of the scientist, which is based on: a) basic human ethical standards; b) scientific ethics; c) on their own scientific specifics. Adherence to the principles in scientific research also contributes to the humanization of science. The so-called approaches only state the belonging or inclination of the scientist to a certain scientific school, concession, theory. For example, civilization or formation.

It is well known that human ethical standards, or principles, are formulated in the Bible. Some of these norms are transformed into scientific principles, which were reflected in the Code of Ethics of Scientist of Ukraine, which was adopted at the General Meeting of NASU on April 15, 2009 (Etychnyj codex...). Thus, from the second and fifth commandments of the Law of God – «Do not make yourself an idol» and «Honour your father and your mother» (Zakon Bozhyj, p. 519) – the scientific principles of the rule of truth («Plato is my friend, but the truth is more expensive»), deideologization of scientific creativity, independent thinking emerged. The latter requires a combination of the desire to find one's own path in science with a respectful attitude toward scientific luminaries, predecessors, that is, all spiritual parents.

One must valiantly defend one's point of view. Otherwise you have no moral right to call yourself a scientist. A scientist is bound to be principled, like M. Luther, who published his credo 500 years ago: «I cannot stand otherwise» («*Hier ich und ich kann nicht anders*») (Lyuter). It is necessary to defend your point of view. Even when it is contrary to popular opinion. «That I would not stand for what I consider to be the verity and the truth! .. If only the whole world would fail, I will not bend my neck under the yoke... I want to boldly look into the eyes of my boys when they grow up free people» (Ibsen, 1957, pp.569–570). – These words of Dr. Stockman, the character of Norwegian playwright Henry Ibsen's famous drama «The Enemy of the People», can be recognized as another moral principle of a true scientist. Probably, the scientist, as well as everyone, can make certain adjustments during the life, doubt, even be mistaken in something, then recognize and correct the mistakes. In general, mental anguish is a normal state of not only the scientist, but any homo sapiens. After all, holy apostles Peter and Paul were not born preachers of the Christian faith. But after becoming them, they were harassed and persecuted by the authorities and society at that time. Because of their faith, one was crucified on the cross, another was distracted (Zakon Bozhyj, p. 339). It is bad when a scientist has a radical change of mind for the sake of business or material gain.

The Seventh Commandment – «Do not commit adultery» (Zakon Bozhyj, p.519) – acts in the scientific realm as a principle of scientific dignity: do not sell scientific conscience, protect perfect scientific honesty at all stages of scientific research. The eighth commandment – «Do not steal» – stands as the scientific principle of the inadmissibility of scientific plagiarism, fraud, piracy, which is also discussed in the Code of Scientist of Ukraine.

It is known that such a moral illness as plagiarism takes places in Ukrainian educational and scientific space, unfortunately. Moreover, examples of particularly malicious plagiarism are shown not only by novice scientists but by those who are obliged by their position to be models of virtue. Scandals related to the plagiarism of power grandee occasionally arise. The book of the former president and «professor» V.F. Yanukovych «Opportunity Ukraine», which was published in 2011 in Austria, was recognized as a typical example of the placard. According to the weekly «Week.UA», under the signature of the President, not only big ideas were issued, but entire paragraphs were compiled from texts that were previously published by others (Top-5...). By the way, plagiarism is often associated with another characteristic manifestation of scientific fraud – the use of mercenary by officials to write dissertations and other scientific papers.

From the general principles of science, the first place, in our opinion, is the dialectic, which requires the scientist to investigate any phenomenon in his constant motion, the source of which is the contradictions, their unity and struggle. It should also be borne in mind that according to the third law of Hegel's dialectic – «negation of negation» – our evaluative judgements change as we accumulate knowledge, sometimes to the contrary, in order to go beyond the previous ones, but deeper, objective, synthetic views and beliefs.

The methodological specificity of dialectics lies in the fact that it can act simultaneously in two hypostases – the principle and the philosophical method of scientific research. As a method it is one of the tools that helps the researcher to be objective, to reveal the essence of phenomena and processes, to explore their complexity, contradictory nature, their past and present. In particular, the use of dialectics, as a principle and method, allows us to see each society in the aggregate, simultaneously the existence of different socio-economic modes, and the historical process – as a change in their combinations.

Purely historical methodological principles include those principles that follow from the essence of historical science. Firstly, it is the principle of concreteness, according to which each historical event should be viewed in a specific form, in a specific space and time. Secondly, it is a principle of reliance

on historical sources that requires the historian to formulate his or her judgements and conclusions on the basis of historical sources. Thirdly, the principle of consistency, which involves the examination and consideration of all the elements of facts and data, preventing the ejection only of those facts that can confirm the author's concept. It should be operated not by single, selected, advantageous facts, but by the totality of various, contradictory facts. After all, even the most obvious facts, taken from the context of events, can give a false picture, as it happened in the book of the modern Russian economist and historian V.Yu. Kasatonov «Stalin's Economics». It shows some of the economic achievements of the totalitarian regime, but does not mention the high price that the people had to pay for all the high economic indicators of the regime (Kasatonov, 2014). Fourth, the principle of immersion in the historical era (the principle of historicism), which has two components: a) the reproduction of the spirit of a particular era, penetration into the atmosphere where phenomena, events and processes took place; b) analysis of facts, phenomena, behaviour of historical characters, taking into account a particular historical era, its laws, ethical norms, traditions. The founder of classical Russian historiography N.M. Karamzin (1766–1826) said about this appraising the activities of Princess Olga. As the chronicle says, she killed thousands of people from another tribe but she was nevertheless recognized as a «saint», The historian wrote: «...we must evaluate the Heroes of History by the customs and morals of their time» (Karamzin, 1988, p. 100). Violation of this principle not only leads to false and biased scientific conclusions, but is also often used for political purposes, which gives reason to call history a policy that has been brought back. Fifth, the principle of objectivity, which presupposes an impartial attitude to the facts, impartiality of assessments, the avoidance of political, ideological, religious-denominational and other circumstances, while taking into account the subjective component of any historical works and written sources. The historian is not a prosecutor or even a judge; he is more likely to be likened to a pathologist, for whom the main thing is to get to the truth by digesting a dead body, that is, that can no longer be revived, and must remain impartial. However, consumers of a scientific product created by a historian should be vigilant, that means taking into account objective reality: no matter how honest and principled a historian may be, no matter how objective he is, his work would reflect his political, national, ideological religious, party and other preferences, peculiarities, likes and dislikes. As the famous Russian historian V.O. Klyuchevsky (1841–1911) in «Methodology of Russian History»: «The selection and evaluation of phenomena by historian-Mohammedan will always be different from those by

Christian historian» (Klyuchevskij, 1989, p. 72). In this connection, various, sometimes contradictory, historical estimates of important historical events in the predominantly Greek Catholic West and Orthodox East of Ukraine seem quite understandable.

If methodological principles determine a scientist's behaviour in accordance with beliefs, then methods of scientific research are a tool in his hands. In addition to dialectics, any study uses general scientific and special scientific methods.

As it is known, science is a sphere of human activity, and its function is the development and theoretical systematization of objective knowledge about reality based on the knowledge of the scientist (subject of study) of certain facts, events, things, processes (object of study). For this purpose, a scientist-researcher uses various general scientific and special scientific methods, which have been created and proved their usefulness and effectiveness in the process of scientific practice.

General scientific methods of cognition are methods used in all or in many natural, technical and human sciences. It is imperative in any scientific study to use two pairs of methods: analysis and synthesis, induction and deduction. They are closely interconnected, interact with one another, and in this form are powerful research tools in all scientific fields.

The most important methods of any scientific research are such scientific methods as analysis and synthesis. They are essential, because they derive from the very definition of science, which involves two interrelated processes – the study of existing and the creation of new.

Analysis is the imaginary or real decomposition of entire objects into their constituent elements, further study, classification of the latter and, figuratively speaking, their placement on separate shelves by certain properties, qualities and features. They can be in the technical and natural sciences, such as size, function, colour, shape, material, power, etc.; in fundamental and human sciences – separate problems and questions.

To describe a phenomenon is not a science yet. In particular, one cannot call scientific works, let us say, ancient Byzantine or Ukrainian chronicles, which contained descriptions of various events in their chronological sequence. History as a science begins only when the object of the study is clearly defined and there is a transition from the use of a purely chronological, temporal form of illumination of the past to a problem-chronological form, which involves the use of the analytical method. The first scientific work on Ukrainian history was D.M. Bantysh-Kamensky's (1788–1850) «History of Little Russia», which highlighted a number of subjects in the national historical process «from the displacement of the Slavs to

the destruction of Hetman's rule» (Bantysh-Kamensky, 2014). In modern historical science it is accepted to distinguish such basic problems as development of economic and political relations, internal and foreign policy of the state, cultural processes etc. In all social sciences the forms of state system, political regime, state governance, political systems, peculiarities of ideology in a certain society are also analyzed in comparison.

The analytical method is widely used in historical works dedicated to individual personalities. For example, the prominent Ukrainian historian N.I. Kostomarov (1817–1885) in his fundamental work «Rus History in the biographies of prominent figures» painted historical portraits of more than 70 people. He necessarily depicted each figure on a universal historical background, showed his ancestry, formation of outlook, life path, achievements, contribution to the development of the state, role in history (Kostomarov, 2011). In particular, the part about Prince Konstantin Ostrozky begins with the words that «in the 14<sup>th</sup> century, when in east Moscow laid the embryos of a single Russian state, in the west, revolutions were carried out that forced the other half of Rus to alienate from the Rus world». Then follows a description of his ancestors: Fedir Ostrozky, «famous for his struggle for Rus against Poland», his great-grandson – Konstantin Ivanovich, a hetman of Lithuania. The activity of Prince Konstantin Konstantinovich, one of the most prominent people of that era, who, according to M.I. Kostomarov, «was not distinguished by any military exploits or state actions,» but «was in the center of mental activity that arose in Rus at the time», «was the engine of mental and religious revival in Polish Rus», contributed to the creation of printing in Ukraine, opened a «main school» in Ostroh, which became the «founding father of higher education institutions in the Rus land» (Kostomarov, 2011). Nowadays, when considering certain personalities, it is customary to distinguish such issues as the conditions of personality formation, political, public, scientific and pedagogical, educational, entrepreneurial and other) activities.

However, no matter how valuable and important the analysis is, it is by no means an end in itself, the «final stop» of scientific research. It is only the basis and material for synthesis. If the purpose of the analytical method is to identify the internal structure of a particular object, then the use of synthesis, on the contrary, should lead to the connection of components of a complex phenomenon, the creation of a new structure for a specific purpose, a specific function and a plan of the researcher. In the technical sciences, it can be the creation of a certain mechanism, in the physical and mathematical sciences – the solution of a certain problem, in the humanities, in particular,

in history – the coverage of phenomena that have occurred in the past and which are the subject of historical research. For example: «The intellectual potential of Ukrainian political thought at the turn of the nineteenth and twentieth centuries», «Ukraine between the two revolutions: the power of Bonapartism and social radicalization. 1907–1914», «Revolutionary processes in Ukraine after the overthrow of the autocracy», «Directory in the fight for the restoration of the UNR», etc. (Litvin, 2007). Just as it is done in fiction, the subject of historical research is revealed by a particular plot. After all, unlike other sciences, history is characterized by some signs of artistic creativity.

The second important pair of general scientific methods is induction and deduction. Induction is the transition in the process of cognition from individual knowledge to general. In other words, it is a method of research and cognition associated with the generalization of results of observations and experiments. Induction reveals the mechanisms of general knowledge. The peculiarity of induction is its probabilistic nature, that is, if the original premise is true, then the conclusion can only be true, that is, induction does not guarantee the achievement of truth, but only «leads» to it. Every truth must be confirmed by practice.

Examples of induction are found in many works of the detective genre, including Conan Doyle's stories about Sherlock Holmes. Investigating every crime, the detective notices a number of little things, collects them to the heap, and eventually solves a complex search task. So, in «The Adventure of the Speckled Band» the well-known detective investigating the attempted murder of one young woman and the death of another, combines a series of data: it is impossible to enter the women's room either through the window or through the door; her bed was attached to the floor; the bell above the bed to call the servants is fake and serves only as a bridge that connects the space above the bed with the fan, and the one – with the next room, where the killer was – the woman's stepfather; stepfather likes to surround himself with all sorts of exotic animals; a small cup of milk was found in his room; stepfather is interested in the death of both of his stepdaughters, because it is he who will then own all the property. And *woola* – the conclusion is made: the older sister died of a poisonous snake, the life of the younger sister is in the same danger (Conan Doyle, 1982, pp.150–170).

Accumulation of reliable facts in the process of cognition leads to the receipt of general judgements, the establishment of certain laws, generalizations, axioms, formulation of laws, the truth of which is proven by practice. The ultimate function of induction in the process of cognition is the development of scientific theoretical



systems as a set of facts, views, ideas that explain the phenomena of the material and spiritual worlds.

In turn, identified on the basis of empirical facts and theoretical judgements, the established axioms and developed theories further serve as the starting point for new judgements and scientific research. That is, the process of cognition goes in the opposite direction – not from the individual facts to the receipt of the general, that is, to the general picture of events, phenomena, processes, but vice versa – from the general knowledge of a certain system of things to the establishment of separate and individual. This method is called deduction. In its simplest form, the following statement is deductive: «All democratic states have a developed multi-party system. In the former USSR, there was only one party. The USSR was not a democratic country». Or something like this: «In legal states government acts only within the constitution and laws of the state, here is the rule: «one law for all». This cannot be said about Ukraine. Ukraine is not a legal state».

It should be borne in mind that the truth of the result directly depends on the truth of the original general knowledge. False or incomplete basis on which our judgements are based leads to erroneous judgements and results. For example, those suggested by the Russian ethno-historian Yu. D. Petukhov, who in his work «The Source of Rus» first expressed the erroneous conception of the creation by the gods of the people of «Rus» as the first «controversy» on earth, and then «found» in Mesopotamia, Jews, ancient Egypt, India, Europe, the offspring of this controversy among some peoples of the world on the grounds that their name has the letter «rus» or «ros» (Petukhov, 2009). However, not so far away from the Russians were the modern Ukrainian creators of the «theory» of another «super ethnos» – biblical Galileans - ancient Gauls, modern Galicians (Western Ukrainians) (Kaganets). Evaluating such a «methodology», it can be noted that, for example, the Ukrainian words «*kyt*», «*kit*», «*kat*», «*kut*», «*kutia*» etc., also have obvious similarities, but this does not indicate that they mean things of the same order in any way. The basis of deduction must be sound and flawless, supported by obvious facts and proven practice. For, as the Ukrainians say, «Pears do not grow on the willow; cherries do not blossom on the oak».

Methods of induction and deduction are extremely important for the historical sciences. Using the method of induction, the historian first examines the material and written historical sources, on the basis of which he reconstructs the picture of the past, shows the life activity of historical societies, the lives of individuals, historical processes and phenomena. Firstly, the deduction method allows you to use already acquired material – both own and alien – in subject-practical cognitive activity, in the study of specific phenomena

and facts. Thus, it greatly facilitates and accelerates the research process. Secondly, deduction provides the process of exploring a particular historical phenomenon against the background of common historical processes. Thirdly, the deductive method allows you to make the right practical decision in a particular situation. Returning to the above example of the investigation into Sherlock Holmes, let us note his final, deductive, key proposition that emerges from the overall picture of the crime: the murderer is the stepfather of two sisters, he must be arrested immediately (Conan Doyle, 1982, p.169).

**Discussion.** In addition to these general scientific methods, which are required for any scientific study, a number of other scientific methods have been created in the process of scientific development. They are used by researchers as needed, and are divided into empirical methods (experiment, measurement, observation, modelling, questioning, testing, interviewing, etc.) and theoretical methods (mathematical modelling, system-structural, comparative, logical-linguistic, abstraction, idealization, historical, etc.). Each scientific field has at its disposal only its methodological complex. The scientist's task is to choose the most effective and rational methods for his research in the whole arsenal of methods. Or, in the absence of such, to create his own.

Among the methods of purely historical research, the first place among them belongs, of course, to the comparative method, because historical science manages facts, and they need comparison. Progress or regression, much or little, worse or better – how to determine the scale and significance of phenomena or processes in social development without comparison? The comparison is made both vertically (in time) and horizontally (in space). In both cases, it is done in order to know the truth, to create an objective picture of the historical process. Without comparison, our ideas and conclusions will always be subjective.

Comparison is the process of establishing the similarity or difference of objects and phenomena of reality, as well as finding a common feature of two or more objects. This method identifies quantitative and qualitative characteristics of the object under study, classifies, organizes and evaluates the content of phenomena and processes. Certain requirements must be met for the sake of comparison. Firstly, the comparison must be made on the most important, essential features. Secondly, there must be an objective community between objects, phenomena and processes.

The peculiarity of the comparative method is that it requires the use of other general scientific and special methods, which act as necessary auxiliary instruments of scientific research. In particular, when comparing, if necessary, such general scientific methods as analysis



and synthesis, induction and deduction, statistical, mathematical, descriptive, etc. are applied.

Each scientific field has at its disposal only its traditional methodological complex. However, recently there is a process of peculiar methodological convergence. Especially «fruitful» is the use of methods that were not previously considered characteristic of a particular scientific, particularly, borrowing of some methods from the methodological complex of mathematical sciences in the humanities and vice versa. Thus, mathematical methods play an important role in the economic sciences in the processing of statistics, modelling, etc. Thereby, the important methodological principle of interdisciplinary communication is realized, which has a synergistic effect. However, the differences in the nature of the subjects and categories of the humanities, natural sciences and mathematics should be taken into account. The problem is to identify a specific humanitarian field in which the application of mathematical methods produces results.

**Conclusions.** Principle is one of the important virtues of a true scientist, just like any ordinary person. Also, when we say that a scientist is unprincipled, it means that we think of his professional degradation. The same goes for scientific works. Unless research is based on sound ethical and scientific principles (integrity, comprehensiveness, systematicity, objectivity, etc.), the results of such activities cannot be respected or trusted in the scientific community.

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