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Anamnesis morbi or *anamnesis tubi*? On the issue of the methods and methodology of the history of medicine research

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The methodology of the history of medicine forms the foundations of historical knowledge and helps develop a substantiated system of historical ideas to explain the circumstances surrounding the origin, formation and development of fundamental and clinical disciplines. The history of any medical field (including medical specialties) can be examined from two viewpoints: as a reconstruction of the development of disease treatment methods, implying the understanding of the evolution of the ideas of their etiology and pathogenesis, or as a chronicle of technical manipulations that is determined by procedures and priorities. In the opinion of the author of the article, it is methodologically correct to concentrate on the history of approaches to curing the various diseases and disease groups and not on the history of the specific therapeutic or diagnostic methods. Historians must aspire to identify the rules of the ontology of the development of the various fields in clinical medicine.

The formulation of the problem of the methodology of historical knowledge anticipates a conclusion made from scientific discussions on an interdisciplinary and even a meta-disciplinary level. The principal idea is that every science, by turning to a particular object in its search for information, in accordance with its research object could base the reliability of the data obtained on other criteria. Such a situation offers the possibility of dialogue between sciences according to the principle of complementarity, which would help reach a new level of understanding of the integrity of the research object and the limits of the accuracy of knowledge. The medical historian needs special medical knowledge to understand the essence of the phenomena he is studying and for historical reconstruction he needs to know the methods of historical science and the relevant humanitarian disciplines.

***Keywords**: history of medicine, philosophy and history of science, methodology, interdisciplinary research, endoscopic surgery of the abdominal organs*

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Scientists need to use principles and methods that help to substantiate their findings, to consolidate their empirical data by bringing order to their scientific constructs, and to develop a consistent conceptual framework. The development of science implies the pursuit of a certain consistency of ideas. This is also a matter of methodology. The methodology of the history of medicine forms the foundations of historical knowledge, facilitating the development of a substantiated system of historical ideas to explain the circumstances surrounding the origin, formation and development of both fundamental and clinical disciplines [1, p. 11]. Historical knowledge is therefore informed by specific features and principles that, combined with a general theory of science, enable the study of evidence from a historical viewpoint, and gives that knowledge systematic consistency. Knowledge of methodology allows a historian to comprehensively examine the conclusions of others, and to rely on them only if the results are satisfactory. In general, the methodology of

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history as a science focuses on two main aspects: the theory of historical knowledge, and the study of methods of historical thought [1].

For the development of the history of medicine in Russia, it is vital for scholars to acquire the skills to make methodologically correct decisions regarding the object and subject of their research. This is particularly important to remember when studying the history of clinical disciplines. What, for example, is the history of surgery? One answer is that it entails reconstructing the development of surgical methods of treating diseases, entailing an understanding of the evolution of ideas regarding their etiology and pathogenesis (*anamnesis morbi*); a second is that it involves discovering facts about technical methods and answering "who", "when", "how" and "what" questions about them (*anamnesis tubi*). With the latter, individual procedures and priorities act as "milestones" in the course of history.

This variety of approaches raises the issue of the contrast between the epistemological and the phenomenological ("fact-collecting") approaches to the study of history.[1] In the former case, we study the history of ideas and reconstruct paradigm shifts, cycles of scientific revolution, etc. Here, we draw conclusions by generalizing from the history of individual branches of medicine. With such an approach, studying the evolution of treatment methods can be compared to collecting hundreds of archaeological artefacts or analyzing a large number of written sources — evidence for a particular period.

With a fact-collecting approach, the researcher aims to establish an endless stream of facts, striving for maximum detail rather than generalizing. In my previous publications, I have often highlighted a significant problem with the professional training of Russian historians of medicine. The majority of them have a medical background, and come to the history of medicine from clinical specializations: surgery, therapy, etc. On one hand, this is an advantage, in that they have specialist medical knowledge, but on the other, it means that they need to acquire the competencies and skills of an academic historian. Unfortunately, despite their academic qualifications, not all medically trained historians of medicine recognize the need to learn their new field. Here we can see an important methodological problem affecting our academic field: a focus on the history of individual clinical specializations. For a practicing doctor, a preoccupation with narrow fields of expertise can lead to a loss of breadth of clinical thought. Patients sometimes lament that, for all the abundance of specialists on specific, narrow problems, it is very hard to find a doctor capable of assessing a patient's condition overall. For a doctor studying the history of medicine, such narrowness of focus can create a dangerous temptation: to write a "history of achievements" of those working in narrow fields.

Sadly, even leading academics can fall into this methodological trap. One example of this is a recently published monograph by V.E. Olovyanny, A.V. Fedorov and S.P. Glyantsev, *Laparoscopic surgery in Russia: looking from the present into the past, with a hope for the future* [7].

The need to choose the object and subject of research correctly

The issue of methodology, unfortunately, remains fundamental to the history of medicine as part of the overall history and philosophy of science. For example, A.S. Lappo-Danilevskiy writes, "In the absence of a methodological discussion, basic scientific terms become in a way '*praenotiones*' (preconceptions based on tradition): they are either not defined at all, or are defined incorrectly, and without strictly defined terminology are understood in different ways by the participants in the discourse; and what can be said of a formula whose elements are understood differently by each person discussing it?" [1, p. 15]. To a large extent, the existence of a clearly defined methodology derives from the current fundamental theory shared by the scientific community and underlying their general ideas and disciplinary matrix, or paradigm. Thomas Kuhn, the originator of this concept, defined the acquisition of a paradigm as a sign of the maturity of a scientific field [8]. This is a systemic approach, and historical studies are certainly no exception. Olga Medushevskaya writes: "In the early twentieth century, many people agreed that there was a fundamental difference between epistemological approaches (the nomothetic — the study of laws and typologies in the natural

[1] For more details on the methodology of the history of science, see, for example, [2–6].

sciences; and the idiographic — the value-based approach to systematizing diversity in the humanities)", but now "an aspiration towards understanding general patterns and towards interdisciplinary dialogue has gained the upper hand" [9, p. 8]. This is fully justified, particularly given the nature of modern science, with its rapid rate of development and blurring of boundaries between disciplines. At the same time, all sciences share a common goal: to present new, evidence-based, systematic knowledge to the wider public.

The work by Olovyanny et al. is evidence of the dangers of choosing the wrong subject and object of research. It is not that the book is not timely: as we enter the twenty-first century, we have seen significant achievements in various fields of clinical surgery. The most important technological factor in any review of treatment approaches for various abdominal organ conditions is the development of endoscopic equipment. Minimally invasive (primarily laparoscopic (keyhole) methods of abdominal surgery are increasingly and successfully replacing traditional laparotomy. In seeking to establish the reasons for this, historians of medicine are showing an increasing interest in the origins and development of methods of endoscopic surgery in the twentieth century.

The work of Olovyanny, Fedorov and Glyantsev is a history of the use of instruments (laparoscopes and related devices) to examine the organs of the abdominal cavity and lesser pelvis and perform minimally invasive surgery. As such, having made endoscopic visualization the object of their study, the authors have had to describe the history of the development of two completely different clinical disciplines: surgical gastroenterology and gynecology, which, for obvious reasons, also involve issues of emergency abdominal surgery.

It should be noted that historically different areas of surgical gastroenterology have emerged as subjects of scientific research and clinical practice: oesophagogastric surgery, surgery to the hepatic and pancreaticoduodenal region, surgical treatment of conditions of the large intestine, etc. This is no accident, but reflects the range of issues involved in treating patients with such conditions. As such, the correct approach would seem to be reconstructing the history of the development of clinical specializations, and of solutions to treatment problems, rather than attempting a chronology of studies of individual parts of the body using particular surgical instruments and operative techniques (such as intraluminal endoscopy or laparoscopy).

Olovyanny, Fedorov and Glyantsev do much to emphasize the pre-eminence of the Russian obstetrician and gynecologist Dmitriy Ott, whom they regard as the father of laparoscopic surgery. Their insistence on this can be explained by the fact that their book covers both surgery and gynecology: after all, if Ott was the first person to view the organs of the lesser pelvis, using the optical device available to him [7, p. 42], the history of the issue being studied starts with his work.

However, I believe that we need to clarify when a scientist can be said to have pre-eminence regarding a method of diagnosis or treatment. For example, Galen, in describing his surgical treatment of a sternal fistula, writes that he saw the patient's heart working (the fistula had reached the pericardial cavity). But this does not mean that Galen was the founder of heart surgery: any observation of the heart during a thoracotomy for a lung condition has nothing to do with heart surgery. Similarly, Ott, who was working on gynecological problems and observed the abdominal organs accidentally, cannot be regarded as the father of abdominal laparoscopy.[2] Addressing a meeting of the Saint Petersburg Society of Obstetricians and Gynecologists in 1901,[3] Ott stated only that it was possible in principle to directly observe the entire lesser pelvis, caecum and vermiform appendix, transverse colon, stomach, liver and gallbladder using the new method.

Olovyanny, Fedorov and Glyantsev criticize quite strongly the authors who, they believe, underestimate the significance of Ott's work. These include one D.A. Balalykin, who,

[2] It may be recalled that, when performing a vaginal laparotomy, he introduced a small light attached to a spatula bent at a right angle into the abdominal cavity. In doing so, he primarily had his gynecological work in mind.

[3] See: *Peterburgskoe akushersko-ginekologicheskoe obshchestvo. Protokoly zasedaniy* [*Proceedings of the Saint Petersburg Society of Obstetricians and Gynaecologists*]. Akushersko-ginekologicheskoe obshchestvo v S.-Peterburge [Saint Petersburg Society of Obstetricians and Gynaecologists]. Saint Petersburg, 1887–1904. (in Russian)

"questions Ott's priority", which, they claim, is generally accepted in the literature worldwide. This statement is not entirely accurate, and, from my point of view, warrants further explanation. I have already addressed this issue in detail [10, 11].

In my opinion, Ott was undoubtedly a pioneer in the use of endoscopy in gynecology. However, I believed, and continue to believe, that his work, which has been known to the Russian medical community since 1901, cannot be unequivocally regarded as the starting point for laparoscopic examination of the abdominal organs. In fact, Olovyanny and his co-authors themselves correctly state that Ott's aim was to examine the organs of the lesser pelvis, noting that he was able to observe the stomach, liver and other organs as well. On the other hand, Georg Kelling and Hans Christian Jacobaeus purposefully sought to improve the diagnosis and treatment of conditions of the abdominal organs, primarily the stomach.

Let us recap the historical facts. "On 23 September 1901, Georg Kelling, addressing the 73rd Congress of German Natural Scientists and Doctors in Hamburg, reported on his work on endoscopic examinations — primarily oesophago- and gastroscopy. Among other matters, he reported on his experimental examination of the abdominal organs (in dogs) using a Nitze cystoscope introduced through the abdominal wall. Kelling called his method 'celioscopy' [55, 59, 60].[4]

In 1910, Sweden's Hans Christian Jacobaeus [48, 49, 53–55, 70–74][5] reported on 17 clinical observations involving examination of the abdominal organs using an endoscope introduced through an aperture in the abdominal wall via a trocar. In one, he had correctly identified stomach cancer in the patient, and had given the method a name: 'laparoscopy'. Jacobaeus was also unarguably the first person to set out principles for the use of laparoscopy: the method of examination had to be safe; a transparent medium had to be introduced into the cavity being examined (Jacobaeus used filtered air); the endoscope used had to be small enough to be introduced via a trocar.

There was even a who came first dispute between Kelling and Jacobaeus. In 1911, Jacobaeus announced he had performed 80 successful laparoscopies [68].[6] A year later, he published his seminal work *On Laparo- and Thoracoscopy*, in which he reported on 109 successful examinations. [69][7] Meanwhile, in early 1911, in Baltimore, America's Bertram Bernheim, independently of Kelling and Jacobaeus, also came up with the idea of observing the abdominal organs without laparotomy... [74]"[8] [10, p. 74].

[4] The quoted passage refers to the following works: Benedict E.B. *The value of peritoneoscopy in gastro-enterology: a review of 100 cases*. Amer. J. Dig. Dis. 1939; 6(8): 512; Brailski C. *Significance of Laparoscopy and Puncture-Biopsy of the Liver for the Diagnosis and Differential Diagnosis of Liver and Bile Duct Diseases*. Z. ärtz. Fortbild. 1963; 7: 395–399; Galame A. *La photographie Laparoscopique [Laparoscopic photography]*. Presse Med. 1955; 63: 1848 (in French). – *Editor's note*.

[5] The quoted passage refers to the following works: Tymchuk N.K. *Peritoneoskopiya v diagnostike zabolevaniy organov bryushnoy polosti* [*Peritonescopy in the diagnosis of conditions of the abdominal organs*]. 28-ya Nauchn. sessiya Dnepropetrovskogo medin-ta [28th scientific session of the Dnepropetrovsk Medical Institute]. Dnepropetrovsk, 1965 (in Russian); Beling C.A. *Selection of cases for peritoneoscopy*. Arch. Surg. 1941; 42: 872–889; Benedict E.B. *Peritoneoscopy*. New Engl. J. Med. 1938; 218: 713–714; Benedict E.B. *The value of peritoneoscopy in gastro-enterology: review of 100 cases*. Amer. J. Dig. Dis. 1939; 6: 512; Jacobaeus H.C. *Über Laparo- und Thoracoscopie [On Laparo- and Thorascopy]*. Beitr. Klin. Tuberk. 1912; 2: 185–354 (in German); Jacobaeus H.C. *Sur la laparoscopie et la thoracoscopie [On Laparo- and Thorascopy]*. J. Med. Lyon. 1913; 7: 1070–1091 (in French); Jacobaeus H.C. *The use of laparothoracoscopy form a practical point of view*. Tr. Intern. Cong. Med. Sect. 6. Med., 1913. London, 1914; 2: 565–599; Jacobaeus H.C. *Können durch die Laparoskopie Indikationen zu chirurgischen Eingriffen gewonnen werden? [Can laparoscopy give indications for surgical procedures?]*. Nord. Med. Arch. 1914; 47(14): 16 (in German). – *Editor's note*.

[6] The quoted passage refers to the following works: Jacobaeus H.C. *Kurze Übersicht über meine Erfahrungen mit der Laparo-thoracoscopie [A brief overview of my experiences with laparo-thoracoscopy*. Mün. med. Wschr. 1911; 57: 2017–2019. – *Editor's note*.

[7] The quoted passage refers to the following works: Jacobaeus H.C. *Laparo-thoracoscopie [Laparo-thoracoscopy]*. Stockholm: Higiea, 1912; 74: 1070–1091. (in Swedish) – *Editor's note*.

[8] The quoted passage refers to the following works: Jacobaeus H.C. *Können durch die Laparoskopie Indikationen zu chirurgischen Eingriffen gewonnen werden? [Can laparoscopy give indications for surgical procedures?]*. Nord. Med. Arch. 1914; 47(14): 16. (in German) – *Editor's note*.

My assessment eight years ago of the question of priority regarding laparoscopic examination of the abdominal organs was as follows: "The idea of examining the abdominal cavity using illumination and additional instruments was put forward by Ott, but it was Jacobaeus who was devised the laparoscopic method. While it was Ott who had the undeniably brilliant idea of examining the abdominal cavity using an optical system to illuminate it, he failed to develop his idea into a clearly defined method. Furthermore, his introduction of equipment through the vagina has more in common with the modern procedure of culdoscopy, used in gynecology. We should also remember that, as an obstetrician and gynecologist, Ott focused on examining the organs of the lesser pelvis, and his accounts of viewing the intestines should be regarded as the accidental, unsystematic findings of an inquisitive researcher [16, 17].[9] <...> It is Jacobaeus who deserves to be regarded as the inventor of the laparoscopic method (which he applied, inter alia, for the diagnosis of conditions of the stomach)" [10, p. 74].

Hence, different definitions of the subject and object of research lead to serious differences in the assessment of specific historical events. For researchers prioritizing an epistemological approach and interested in an "*anamnesis morbi*", the laparoscopic method represents a solution to clinical problems, as it is on clinical problems and the history of their focus lies. The object of research then becomes "the history of surgical gastroenterology" (or, alternatively, "the history of abdominal surgery") or "the history of gynecology". In the former case, Ott's work constitutes an interesting idea subsequently used by surgeons to address the problem of diagnosing abdominal organ conditions. In the second — Ott's ventroscopy — the originator status clearly lies with Ott (as Olovyanny, Fedorov and Glyantsev agree). For researchers reconstructing an "*anamnesis tubi*", it is the performance of the laparoscopic examination itself that is key, irrespective of the pathology (surgical, gynecological or urological), and their history starts with the first attempt at visualization (i.e., in our case, Ott's work).

In my view, it is wrong to treat the periodization of clinical disciplines as a history of technology or of an instrumental method. Olovyanny and his co-authors describe a "history of laparoscopic surgery", covering both gynecology and abdominal surgery. They start out from the possibility in principle of using a laparoscope to examine the interior of the body; whether the issue is one of female diseases of organs of the lesser pelvis, or of problems dealt with by gastroenterology surgeons, is not important. This, I believe, explains their insistence on Ott's priority.

However, historians must aspire to identify the rules of the ontology of the development of the various fields of clinical medicine. We certainly need to study the history of specific specializations, but we also need to use that analysis for broader historical and scientific reconstructions. Furthermore, I believe that it is methodologically correct to concentrate on the history of approaches to treating diseases and their groups, rather than on the history of specific therapeutic or diagnostic methods.

The need for exhaustive knowledge of the historical literature, and to use sources correctly

In 1923, Lev Karsavin, discussing the crisis in historical studies in his day, wrote: "'Historians' mores indicate the state of history. But the latter is now marked by extreme specialization — i.e., the disintegration of comprehensive knowledge into self-contained disciplines, and the loss of the idea of humanity.

As a result of this disintegration, no one is thinking any more about coordinating the various historical disciplines. The historian of religion sees no need to justify his ignorance of economic history: 'It's not my field.' The paleographer views with disdain historians ignorant of the secrets of his specialization: it is too early to generalize. First, all the material has to be collected and 'carefully' presented. Material can certainly be collected in an unprincipled way! Any attempt at a synthetic reconstruction of the historical process raises suspicion and doubt.

[9] The quoted passage refers to the following works: Deryabina E.Y. *O peritoneoskopii [On peritoneoscopy].* Vestnik khirurgii [Journal of Surgery]. 1963; 8: 131–134 (in Russian); Elizarovskiy S.I. *Sluchay sarkomy zheludka, diagnostirovannyy metodom peritoneoskopii [A case of sarcoma of the stomach diagnosed by peritoneoscopy].* Khirurgiya [Surgery]. 1946; 12: 30 (in Russian). – *Editor's note.*

It is an objection that 'One cannot be a specialist in all fields. Synthesis is the business of the popularizer.' But what, then, is the business of the historian?" [12, p. 219].

In performing any research, one needs to bear its form in mind (everyone knows the difference between a dissertation and a research paper). A monograph entails comprehensive research into the issue in question, and an exhaustive analysis of the historical literature. The reader is entitled to expect original research findings from the author. For historians, this means establishing new facts through exploring sources not previously studied. An original historical reconstruction, based on a fresh interpretation of previously known evidence, may also be regarded as a new research outcome. In the latter case, convincing arguments are required (after all, only a source studied for the first time is valuable in itself).

The general requirements for a monograph, as a form of presentation of the results of historical research, are as follows: the subject and object should be clearly determined; the historical literature on the issue in question should be exhaustively analyzed; the research methods used should be comprehensive and appropriate; the historical reconstruction of the events being studied should be comprehensive; the assessment of these events should be systematic (for example, by adopting some form of periodization), expressed in succinct and insightful conclusions. However, writing the monograph is but the final stage of the research: the historian's skills at working with sources and capacity for historiographical analysis are just as important. It is easy to go wrong if, albeit with the best intentions, one makes the mistake of basing one's judgements on a small number of known facts, without fully establishing the historical events. It is another matter when researchers cherry-pick facts convenient or accessible to them. Such work is better described as "outlines", "selected pages"; anything except a "monograph".

A researcher needs to be guided by the basic principles of his or her discipline. For history, this is the methodology of source studies. The basic principles of this methodology are: understanding must be based on sources; human interaction is studied primarily in mediated form, through the source material; sources are treated as opportunities to "observe" an individual (or society) at key moments of constructive activity and, therefore, at their highest points of self-expression. Understanding a historical source makes it possible to connect specific historical phenomena with social development overall in a particular historical period. In terms of historical methodology, this approach opens up opportunities for interdisciplinary research collaboration. Thus, the methodology of source studies becomes not just a paradigm within the context of historical knowledge, but a fully specific method of studying historical sources, and the basis of the historian's profession [9].

The historian needs to analyses the historical literature exhaustively in order to make sure that their subject of study has not already been adequately researched. If the historian is unaware of, or fails to mention, earlier works by their colleagues, their opinions are much less credible. For example, the first part of the monograph by Olovyanny et al., *Disregarding the authorities*, has two chapters: "The history of laparoscopic surgery: a field discussion", and "The periodization of the history of laparoscopic surgery". The authors quite pointedly claim to have written a pioneering work, stating that "for the first time in Russian literature, its sources have been studied, the key stages of its evolution identified, and the doctors and surgeons who made the biggest contribution to the development of laparoscopic procedures established" [7, p. 7]. In their opinion, they are the first researchers to have "studied documents from the archives of clinics and scientific societies, and the private archives of many of the country's leading academics and clinicians", and the first to reveal to a wider audience records of rare operations [7, p. 7]. But is that true?

At the start of Chapter One, the authors mention work by I.A. Telichkin, adding their own views on the significance of the work of Aleksandr Aminev, which, they say, Telichkin failed to appreciate [7, p. 13]. The authors explain the significance of Aminev's work, and that of E.D. Mozhayskiy, S.I. Elizarovskiy, A.S. Orlov and other surgeons, in some detail. Furthermore, the authors stress that very little is written about their work in the literature. Readers might be forgiven for thinking that the authors are the first

to use them as a source for historical medical research. In analyzing the historical literature, the authors even mention my *The history of gastric surgery development in Russia in the 19th and 20th centuries*, published in 2005 [13], and criticize me for serious inaccuracies: "Furthermore, the author *[i.e., D.A. Balalykin — D.B.]* for some reason totally fails to mention the pioneer of the method, Dmitriy Ott (possibly, in fact, because Ott did not perform gastric surgery), or A.G. Savinykh (1921) and V.I. Dobrotvorskiy (1922), who performed the first endoscopic examinations of the stomach using gastrostomy. [45][10] The research on laparoscopic diagnosis of diseases of the stomach, carried out in 1930–1950 by A.M. Aminev, S.I. Elizarovskiy, G.A. Orlov and E.D. Mozhayskiy is also omitted." [7, p. 26] Later, they note, somewhat condescendingly, that "In his recent works, Balalykin has after all attempted to correct his previous inaccuracies," albeit not entirely successfully in their view: "Despite the fact that Ott is recognized worldwide as having priority in terms of the first endoscopic examination of the abdominal cavity, Balalykin decides to doubt him, equating ventroscopy with 'culdoscopy', a method used by gynecologists in the 1940s-1960s for visual examination only of the lesser pelvis [23-24]"[11] [7, p. 27].

I equate Ott's ventroscopy with culdoscopy because "culdoscopy" is the specialist gynecological term for introducing an endoscope into the cavity of the lesser pelvis through the vaginal wall. Doctors today may not appreciate this: after all, culdoscopy has hardly been used since the advent of non-invasive ultrasound methods to obtain the required diagnostic information. Here, Olovyanny and his co-authors again display poor knowledge of the historical literature: given that Ott was a gynecologist, they should have paid more attention to the literature on the history of operative gynecology (e.g. the monograph *Endoscopy in gynecology*, edited by G.M. Savelyeva [14]) — all the more so as certain sections of *Laparoscopic surgery in Russia: looking from the present into the past, with a hope for the future* are devoted to the history of the adoption of the laparoscopic method in gynecological practice. However, having chosen as their object of research an *anamnesis tubi*, Olovyanny and his co-authors do not go deeply enough either into the history of gynecology or into the history of abdominal organ surgery. The shortcomings in their analysis of the historical literature are particularly regrettable given their own claims of priority in medical history research.

For example, they upbraid me for "overlooking" studies by Aminev, Elizarovskiy, Orlov and Mozhayskiy in my work on the history of abdominal laparoscopy. Apparently, Olovyanny and his co-authors are the first to use these works as sources for historical research. But, again, is that true?

In the past, I have not merely mentioned Aminev's work: I have analyzed his clinical findings, starting with his address to a conference of the Society of Surgeons of Moscow and the Moscow Region on 23 June 1938, when he reported on twenty-four cases of the use of laparoscopy to diagnose abdominal organ diseases [10, 11]. I highlighted the fact that Aminev expanded the indications for laparoscopy (his article *Reclaiming peritoneoscopy* [15]), and completed my account of his contribution to the history of abdominal laparoscopy with a brief analysis of the results of his ten years of work, presented in his monograph *Peritoneoscopy* (1948) [16]. I have also written on the work of Sergey Elizarovskiy, in particular, his account of his successful use of laparoscopy to diagnose a case of sarcoma of the stomach, on six

[10] The quoted passage refers to the following works: Vlasov A.A. *Ocherki istorii khirurgii v Sibiri* [*An outline of the history of surgery in Siberia*]. Moscow, 1999 (in Russian). – *Editor's note.*

[11] The quoted passage refers to the following works: Balalykin D.A. *Zarozhdenie metodov endoskopicheskoy diagnostiki i lecheniya zabolevaniy pishchevoda i zheludka v XIX – nachale XX veka* [*The origins of methods of endoscopic diagnosis and treatment of diseases of the oesophagus and stomach in the 19th and early 20th century*]. Vestnik khirurgicheskoy gastroenterologii [Journal of Surgical Gastroenterology]. 2008; 2: 75–82 (in Russian); Balalykin D.A. *Zarozhdenie metodov endoskopicheskoy diagnostiki i lecheniya zabolevaniy pishchevoda i zheludka v XIX - nachale XX veka* [*The origins of methods of endoscopic diagnosis and treatment of diseases of the oesophagus and stomach in the 19th and early 20th century*]. Vestnik khirurgicheskoy gastroenterologii [Journal of Surgical Gastroenterology]. 2008; 3: 74, 79 (in Russian); Balalykin D.A. *Razvitie laparoskopii v khirurgii zheludka v pervoy polovine XX v.* [*The development of laparoscopy as applied in gastric surgery in the first half of the 20th century].* Khirurgiya [Surgery]. 2009; 1: 72–75. (in Russian) – *Editor's note.*

successful laparoscopies performed by Georgiy Orlov in 1947, and on a series of articles by Evgeniy Mozhayskiy, published in 1959–1962.[12] For example, I drew the attention of readers of the journal *Surgery* to Mozhayskiy's account of "Twenty-two patients with cancer of the abdominal organs, in whom laparoscopy was used to clarify their diagnosis". "Eighteen of the patients were suffering from stomach cancer. Half of them were diagnosed with inoperable cancer thanks to the laparoscopy, seven underwent a laparotomy, and in one a distant metastasis missed during the endoscopy was found" [11, p. 74].

I have also briefly examined the work of E.O. Deryabkina, T.A. Pantyushenko, T.V. Nartsissov, Ch.K. Abaev and S.D. Koshchug, which are assessed as important sources and thus recommended for the first time for further research into the history of the subject. For example, I mentioned that in 1969 Koshchug looked at the use of laparoscopy as part of a diagnostic strategy "to establish the diagnosis and stage of the disease, with histological or cytological confirmation of the nature of the process, whether intraperitoneal or extraperitoneal, and as part of a treatment strategy in order to deliver chemotherapeutic drugs directly into the tumor, and to determine the effectiveness of a course of conservative treatment, so as to subsequently establish the correct and most rational treatment plan in each specific case" [17]. Reading the monograph by Olovyanny et al., one gets the impression that these works were previously unknown to historians of medicine, but their criticism is based on a need to emphasize their priority in terms of the use of the sources, to which end they have been highly creative with the facts.

Bearing in mind the length of the present article, I will cover only their historiographical criticism as it applies to me personally; presenting an alternative history here is not possible. The analysis in the article raises serious doubts regarding its authors' interpretation of the historical literature, undermining the academic importance of their work.

The monograph is based around the authors' proposed framework for the periodization of the history of laparoscopy. However, the question arises as to whether anyone has done something similar before. The authors mention attempts at periodization by D. Rosin, V.S. Savelyev et al., and a number of other researchers [7, pp. 29–31]. Again, they mention my work, though it is not entirely clear why: Olovyanny and his co-authors constantly mix up my writings on endoscopic surgery on the gastrointestinal organs in general with the laparoscopic method in which they are interested. Given the examples cited above of the authors' extremely careless work with the literature, however, the validity of their conclusions has to be questioned.

Interdisciplinary aspects of historical medical research: qualitative methods of sociological research

The formulation of a historical methodology also requires a discussion of an interdisciplinary approach to the choice of research tools. The basic idea here is that each science, in seeking information relevant to the subject of research from something, should be able to assess the veracity of the data obtained against other criteria. In this situation, a dialogue between the sciences becomes possible, based on complementarity, enabling a new level of understanding of the object of research overall, and of the limits to the accuracy of the findings.

Emile Durkheim wrote that the historian needed "to go beyond his usual perspective, to look beyond the particular country or time period he proposes to study, and concern himself with the general questions that are raised by the particular facts he observes." Here, there needs to be a convergence between sociology and history, as "it seems just as unthinkable that the one whose role is to uncover the data is unaware of the kinds of comparisons for which such data may be relevant as it is for the one who compares data to be unaware of how they have been uncovered." Historians need to "know how to look at historical data as sociologists", and sociologists to "possess all the techniques of the historians" [18, p. 1].

An interdisciplinary approach makes it possible to combine the apparently discrete systems of specific academic disciplines (or histories of separate clinical specializations). In such research, there is always a "main" discipline and an "ancillary" discipline, though

[12] For more details on this, see [10].

the status of each discipline can change at different stages. Such changes result from a shift in research methods from one discipline to another, but do not change the object of study. Such extrapolation results from the discovery of similarities between the subject fields studied. For example, although Galen described human anatomy on the basis of his medical knowledge, gained through medical practice and anatomical dissections, this only underlines, and does not negate, the fact that he also used logic and philosophy. He showed how a synthesis of the natural philosophical foundations of rational knowledge could be achieved for the development of medical theory and practice. An interdisciplinary approach is useful in cases where the "main" discipline (in our case, the history of medicine) encounters conceptual or methodological difficulties. As a result, the discoveries made with "ancillary" disciplines are interpreted in terms of the disciplinary approach of the "main" discipline (in our case, medicine).

Discussing the study of ancient sources, Phillip De Lacy writes: "The study of Greek medical texts must necessarily be a cooperative enterprise. For one thing, these texts often include much that is not primarily medical. Galen, at least, finds opportunities to discuss language, logic and literature, to mention political, social and religious institutions, and to introduce a wide variety of historical and philosophical problems in the course of his presentation of his views on psychology, physiology, anatomy, and other matters more directly relevant to medicine. Besides this range of subject-matter in medical treatises, there are the usual problems encountered in the study of any ancient text: reconstructing the original, tracing its sources and its history, and determining its precise meaning" [19, p. 233]. Comparing the results of discipline-specific research reveals new similarities between the subject fields studied, ensuring that the findings are comprehensive. With a narrowly specialist (discipline-specific) approach to studying the legacy of an author as complex as Galen, significant inaccuracies in the interpretation of meanings in his texts are possible when the methods of philology are used separately from those of medicine, philosophy and history. For instance, his treatise *On the Doctrines of Hippocrates and Plato* is a clear example of anatomical dissections and physiological experiments being used to analyses the validity of natural philosophical ideas. Galen's legacy, as the subject of medical history research, can be correctly understood only in interdisciplinary terms.

Going back to historical methodology, when a researcher fills in the gaps in the sources using interpretation and hypothesis, argumentation and criticism play an essential role. For example, according to Vasily Klyuchevskiy, the main task of historical criticism is to attempt to "discern from what people of a particular period do say what they do not" [20, p. 349]. Such gaps might be filled, primarily, by establishing interdisciplinary links between historical studies and the humanities and natural sciences: "Focusing the combined efforts of different sciences on a single target is the most important of the tasks facing history in its efforts to overcome insularity and self-containment" [21]. Such an approach makes it possible to go beyond historical methodology per se in answering the research question.

An essential issue of methodology is the understanding of the scientific method. Among scientific methods, those based on working with existing knowledge differ significantly from those used to acquire new knowledge, as the two have different cognitive objectives. For the former, the main aim is to establish how far previously acquired knowledge objectively reflects reality; for the latter, it is to make it possible to acquire accurate knowledge. Successfully meeting the research objective means using various methods appropriate to it. In other words, a method is not simply a combination of research practices, which may be of a standard nature, but a complex amalgam of theory, procedure and technique, defined by the characteristics of the object of knowledge.

For historians, the object of knowledge is the full range of social phenomena over the entire history of a society. As such, history is linked to all the social phenomena studied by the sciences, so in any historical research the historian plays several roles. They have to have a professional knowledge of the theory, methodology and methods of scholarship, not only of history, but also of those fields that specifically study the phenomena and processes of interest to them, or are related to their object or subject of knowledge. It would have been good to write more here on the sociological research methods applicable to medical history research. However, as with historical research

methods, the use of sociological methods has to be strictly appropriate to the subject of study and how the method is understood within the context of the intended research.

The book by Olovyanny et al. includes excerpts from interviews with experts who have made a significant contribution to the development of laparoscopy. However, the strengths of historical research can easily turn into weaknesses in the absence of methodological discipline. As Aleksandr Lappo-Danilevsky notes, the study of testimony (first-hand accounts) is an important part of the historian's job. However, historians must distinguish between the testimony and the witness. When considering an account of an event by a participant in it, they need to ask just one question — "Is the information provided by this witness true?", and, based on the answer, classify the testimony as reliable or unreliable. The more personal testimony on complex historical facts is, (the greater the level of a witness's personal involvement or experience, and the less they hide their attitude to it), the truer it may seem. Witnesses quite often involuntarily say things that are not true; their testimony may contain accidental errors that have slipped their minds, but anyone wanting to evaluate that testimony has to be aware of them [1, pp. 490–498]. Historians can find such examples of first-hand accounts in biographical writings, archive documents, memoirs, newspapers, and other sources. Quotations from outstanding figures and scientists who have contributed to the development of a particular clinical specialization or surgical method can certainly embellish any book. However, historians should be wary of one-sided opinions. Such material needs to be carefully verified. Here again, an interdisciplinary approach can help, especially if the research focuses on events or facts of the recent past, where testimony from participants in the events can be used to establish the truth, or clarify details. In this way, historical reconstruction using sociological methods becomes possible. The methodology used in sociological research is designed precisely to avoid subjective judgements regarding the object or subject of research. In practice, testimony or information in the form of quotations or excerpts from conversations with witnesses of particular events that have become part of history and are significant in terms of reconstructing a historically accurate picture, are very often used incorrectly in contemporary medical history research, owing to an ignorance of sociological research methodology.

In sociology, qualitative analysis implies a type of research in which observed forms of behavior are compared with the logic (or strategies) of behavior of the target of study, including the senses and meanings given by the latter to such actions [22–31]. Such a methodology aims to identify underlying principles of causation. In qualitative research, the fieldwork stage typically includes direct observation, combined with wide-ranging and in-depth interview work. The analytical aspect of the research is also important, involving categorizing and codifying the evidence, with particular attention being paid to the connections and relationships between the categories established. The main feature distinguishing qualitative research methods is that data is obtained from a relatively small group of respondents and is not analyzed statistically. The researcher's intellectual contribution is also important here. A researcher using this methodology needs to combine an ability to fuse the abstract and the concrete with broad erudition and an ability to compare different sources of information, acting as both interviewer and an analyst. They have to have academic intuition and imagination, to be able to apply logical procedures, and to know macrosociological theories and approaches.

Unfortunately, while the book by Olovyanny et al. is full of interview excerpts, there is no evidence that those interviews were conducted as part of a clearly defined sociological research program. Consequently, the work contains numerous subjective interpretations. At times, the use of unverified testimony leads to serious historical errors, and to priorities being incorrectly attributed and dated. Moreover, the authors fail to account for the fact that witnesses of the same events can understand and interpret them differently, thereby producing countless "histories" of the same thing. By such logic, a historian of medicine's arguments may be based on just a few interview excerpts (or even quotations) from authorities on the research field in question. Credible information can be acquired only if the research methods are correctly used. It is the use of a research method that allows due focus to be paid to what ought to be of interest

to historians of science: the development of ideas, and the scientific disputes surrounding particular events.

I will look in detail at just one of the episodes described in the monograph by Olovyanny et al.: the history of how the laparoscopic cholecystectomy (LC) was introduced into Russian clinical practice. Olovyanny, Fedorov and Glyantsev are right to date the priority here to early 1991, and to highlight the fundamental importance of the work of Yuriy Gallinger [7, pp. 143–146]. They state that in January-February five LCs were performed at the Soviet Research Centre for Surgery, and from March 1991 Mikhail Filimonov and Aleksey Balalykin performed the first LCs at the V.S. Savelyev Clinic [7, pp. 144–145].

Olovyanny and his co-authors mention a symposium held at the Russian Research Centre for Surgery[13] on 17-18 March 1991 by the firm "Karl Storz" [7, p. 145]. They describe it quoting those who were actually there, such as Dr. A.A. Popov: "A participant in the symposium, A.A. Popov, told us the following: 'In spring 1991, we were visited by some Austrian surgeons. They were young people who had just learned how to perform laparoscopic cholecystectomies. The operations took place with a demonstration in the conference room. The front row was filled with eminent scientists and academicians. It felt like they had come to ban the method. The first operation took twenty minutes. The second involved a cholangiography. Everyone there was amazed at what they saw. However, the surgeon academicians cautioned people not to be too hasty, to look at the results, to carry out trials. The next day, the Austrians brought in the patients who had been operated on the day before, and said that they could be discharged that very day. This amazed the audience even more. It was quite a shock! It was easy to be carried away by what one saw'" [7, p. 145]. The problem is that Popov, judging by what is written in the book, witnessed only part of what happened then. By the authors' logic, I, having been directly involved in the events, could also set out my version, which could also be used as the basis for an academic argument. In other words, I could be regarded as just as much of a witness as Timoshin, Popov, etc. Accordingly, my words would also have to be verified. However, it is not hard to see how far my version of events differ from those described by Olovyanny and his co-authors. A kind of "alternative" history of medicine emerges.

Of course, the significance of the March symposium organized in Moscow by "Karl Storz" and "Dina International" was that the possibilities of LCs were demonstrated at it. The astounded surgeons saw patients appear in the conference room less than twenty-four hours after an operation to remove their gallbladder.[14] At the time, the wider surgical community was unaware of the work by Gallinger and Timoshin in January-February 1991. In Europe, LCs had first been performed not long beforehand, and were quickly becoming part of clinical practice. The USSR was one of the few countries to have purchased equipment for abdominal operative laparoscopy in reasonable quantities even before the introduction of LCs. This was the reason for the aggressive and highly expensive marketing campaign by "Karl Storz" and "Dina International".[15] The ideas put forward by the operating surgeon Iosif Prudkov[16] in the early 1980s were not ignored: by the 1980s, laparoscopic incisions were common in clinical practice. For example a patient who presented at a surgery clinic at the N.I. Pirogov Second Moscow Order of Lenin State Medical Institution (2nd MOLSMI) with acute cholecystitis was immediately taken for a laparoscopic gallbladder incision and then managed conservatively. Once the acute inflammation had been reduced, a decision was made on whether to perform a surgical cholecystectomy or to close up the incision, leaving the gallbladder.[17] By the end of

[13] The authors, of course, have slipped up here: the institute was then still the All-Union Research Centre for Surgery.

[14] Usually, patients were told to stay in bed for a week after such an operation.

[15] "Karl Storz"'s sales of equipment to the USSR at the time depended to a considerable extent on the widespread use of laparoscopic abdominal drainage methods, as well as on the popularity of endosurgical organ incisions. Naturally, endourological equipment was their best-seller.

[16] Prudkov was the first person to apply the laparoscopic combined procedure.

[17] This approach was ordered by Viktor Savelyev. It was not used in cases of gangrenous gallbladder, when an incision was simply unsafe or technically impossible: such patients underwent an emergency cholecystectomy.

the 1980s, it had been established that the medium and long-term results for patients undergoing a cholecystectomy were no different from those for patients undergoing emergency radical surgery. There had also been a fair number of observations pointing to the danger of a relapse of gallstone complications after the closure of the incision.

Aleksey Balalykin and his colleagues at the endoscopy research laboratory at the 2nd MOLSMI favoured retaining the earlier method, while Professor Filimonov and his assistant Viktor Vasilyev supported a more active surgical approach. The latter viewpoint prevailed, and the endoscopists were excluded from working with patients with acute cholecystitis.

This all made Savelyev pessimistic about the potential of laparoscopic surgery. It took "Karl Storz"'s Eastern Europe Director Claus Sweder months to persuade him[18] to agree to the symposium in Moscow. Boris Petrovskiy[19] and Boris Konstantinov[20] were not as skeptical, and an agreement was reached more quickly with the All-Union Research Centre of Surgery. Professor Wolf Fashing, head of one of the surgical clinics at the University of Vienna, was invited to Moscow because he had agreed to work with "Karl Storz", and was at the time one of Europe's most experienced LC surgeons. To maximize interest from Soviet specialists in the event, the manufacturers brought new equipment to Moscow for remote broadcasting from the operating theatre in the conference room. During the demonstration, Fashing was to assist the Soviet surgeons, getting involved, if necessary, to ensure that the procedure was correctly followed.

The symposium ran for five days. It began on a Monday, with Fasching performing the first LC, assisted by Yuriy Gallinger. The next patient was operated on by Gallinger himself, assisted by Fashing. On Wednesday, the symposium took a break (the television broadcasting equipment was transported to Moscow's First City Hospital and set up there). On Thursday and Friday, the symposium continued at the 2nd MOLSMI. The Thursday saw unplanned changes: Fashing felt unwell and was unable to operate, so Aleksey Balalykin had to perform the procedure independently. The operation took around ninety minutes, and was a success: the female patient appeared before the symposium participants the very next day. Mikhail Filimonov and those under him did not start performing LCs until much later.

When one compares versions of the same event from different participants, it becomes clear that haphazard "witness recollections" handled in a methodologically incorrect way do not fit the criteria of validity and rigor required for research, however interesting they may be to the historian. "Recollections" on their own cannot serve as a basis for a hypothesis, let alone a research framework. Witness information needs to be unequivocal and clearly appropriate to the research methods used, in this case, those of qualitative sociological research. The results of such research enable a historically accurate reconstruction of the historical event.

Conclusion

Any historical research entails the use of a combination of methods. Even when the research objective is being set, one needs to choose particular approaches both to assessing the current state of research into the issue and to establishing the need for the research. When obtaining new information on something, choosing the right methodology is vital. This needs to be followed when identifying the necessary sources and critically verifying their credibility, the accuracy of the data, etc.

The congresses and conferences held by the Russian Society of Historians of Medicine provide a platform for insightful discussions of research methodology in the history of medicine. Our specialization is a particular one: to understand the essence of what we study, we need specialist medical knowledge, but for

[18] Professor Viktor Savelyev, MD, was a full member of the Russian Academy of Sciences (from 29 May 1997), and of the Russian Academy of Medical Sciences, and Head of the Department of Intermediate-Level Surgery at the Russian State Medical University.

[19] Professor Boris Petrovskiy, MD, was a Soviet and Russian surgeon, a full member of the Soviet Academy of Sciences, member of the Soviet Academy of Medical Sciences, health professional and public figure, Soviet Minister of Health (from 1965 to 1980), and Director of the All-Union Research Centre of Surgery of the Soviet Academy of Medical Sciences.

[20] Professor Boris Konstantinov, MD, was a full member of the Russian Academy of Medical Sciences and (from 1988 to 2009) Director of the Russian Research Centre for Surgery of the RAMS.

the purposes of historical reconstruction, and especially periodization, we need to be versed in the methods used in history and related humanities disciplines. Interdisciplinary research, knowledge of the methods of historiography and source studies, and the ability to use them, are necessities for a medical historian with serious research objectives.

REFERENCES

1. Lappo-Danilevskiy A.S. *Metodologiya istorii* [*Methodology of history*]. Moscow: Izdatel'skiy dom "Territoriya budushchego", 2006. 472 p. (in Russian)
2. Windelband W. *Ot Kanta do Nitsshe: Istoriya novoy filosofii v ee svyazi s obshchey kul'turoy i otdel'nymi naukami* [*From Kant to Nietzsche: The history of new philosophy within the framework of its connection with general culture and separate scientific disciplines*]. Translated from German by A.I. Vvedensky. Moscow: KANON-press, Kuchkovo pole, 1998. 496 p. (in Russian)
3. Husserl E. *Filosofiya kak strogaya nauka* [*Philosophy as Rigorous Science*]. Novocherkassk, 1994. (in Russian)
4. Stepin V.S. *Filosofiya nauki. Obshchie problemy* [*Philosophy of science. General issues*]. Moscow, 2006. (in Russian)
5. *The Philosophy of Science*. Ed. R. Boyd, Ph. Gasper, J.D. Trout. Cambridge, 1991. 800 p.
6. Murphy E.A. *The logic of medicine*. 2nd ed. The John Hopkins University Press, 1997. 511 p.
7. Olovyannyy V.E., Fedorov A.V., Glyantsev S.P. *Laparoskopicheskaya khirurgiya v Rossii: vzglyad iz nastoyashchego v proshloe, s nadezhdoy na budushchee* [*Laparoscopic surgery in Russia: looking from the present into the past, with a hope for the future*]. Arkhangel'sk: Izd-vo Severnogo gosudarstvennogo meditsinskogo universiteta, 2017. (in Russian)
8. Kun T. *Struktura nauchnykh revolyutsiy* [*The structure of scientific revolutions*]. Moscow: Progress, 1977. 300 p. (in Russian)
9. Medushevskaya O.M. *Teoriya istoricheskogo poznaniya: Izbrannye proizvedeniya* [*Theory of historical knowledge: Selected works*]. Saint Petersburg: Universitetskaya kniga, 2010. 572 p. (in Russian)
10. Balalykin D.A. *Endoskopiya zheludka v seredine XX veka (Chast' III). Razvitie laparoskopii zheludka* [*Gastric endoscopy in the middle of the 20th century. Part 3: Gastric laparoscopy development*]. Vestnik khirurgicheskoy gastroenterologii. 2010; 2: 73–79. (in Russian)
11. Balalykin D.A. *Razvitie laparoskopii v khirurgii zheludka v pervoy polovine XX v.* [*The development of laparoscopy as applied in gastric surgery in the first half of the 20th century*]. Khirurgiya. Zhurnal imeni N.I. Pirogova [N.I. Pirogov Journal of Surgery]. 2009; 1: 72–75. (in Russian)
12. Karsavin L.P. *Filosofiya istorii* [*Philosophy of history*]. Saint Petersburg: AO "Komplekt", 1993. 351 p. (in Russian)
13. Balalykin D.A. *Istoriya razvitiya khirurgii zheludka v Rossii v XIX–XX vv.* [*The history of gastric surgery development in Russia in the 19th and 20th centuries*]. Moscow: Meditsina, 2005. 320 p. (in Russian)
14. *Endoseopiya v ginekologii* [*Endoscopy in gynecology*]. Ed. G.M. Savelyeva. Moscow: Meditsina, 1983. 200 p. (in Russian)
15. Aminev A.M. *Vozrodit' peritoneoskopiyu* [*Reclaiming peritoneoscopy*]. Vrachebnoe delo. 1939. № 6. (in Russian)
16. Aminev A.M. *Peritoneoskopiya* [*Peritoneoscopy*]. Kuybyshev, 1984. (in Russian)
17. Koshchug S.D. *Znachenie laparoskopii v obsledovanii bol'nykh zlokachestvennymi novoobrazovaniyami vnutrennikh organov* [*The significance of laparoscopy for the examination of internal organ malignant tumor patients*]. Kishinev, 1969. (in Russian)
18. Wallerstein I. *Sociology and History*. Letter from the President, No. 2, June 1995. ISA Bulletin. 1995; 65–66: 1.
19. De Lacy Ph. *Editing and Translating a Galenic Text*. In: Modern Methods in the History of Medicine / ed. E. Clarke. London, 1971. P. 232.
20. Klyuchevskiy V.O. *Pis'ma. Dnevniki. Aforizmy i mysli ob istorii* [*Letters. Diaries. Aphorisms and thoughts on history*]. Moscow: Nauka, 1968. 528 p. (in Russian)
21. Fevr L. *Boi za istoriyu* [*Combats pour l'histoire*]. Moscow: Nauka, 1991. 635 p. (in Russian)
22. Yadov V.A. *Sotsiologicheskie issledovaniya: metodologiya, programma, metody* [*Sociological research: methodology, programme, methods*]. Moscow: Nauka, 1972. 240 p. (in Russian)
23. Yadov V.A. *Strategiya i metody kachestvennogo analiza* [*Strategy and methods of qualitative analysis*]. Sotsiologiya [Sociology]. 1991; 1: 14–31. (in Russian)
24. Devyatko I.F. *Diagnosticheskaya protsedura v sotsiologii*. Ocherk istorii i teorii [*Diagnostic procedure in sociology*. An outline of history and theory]. Moscow: Nauka, 1993. (in Russian)
25. Devyatko I.F. *Modeli ob"yasneniya i logika sotsiologicheskogo issledovaniya* [*Explanatory models and logic of sociological research*]. Moscow: IS RAN, 1996. (in Russian)

26. Meter K. *Metodologiya sotsiologii* [*Methodology of sociology*]. Mezhdunarodnyy zhurnal sotsial'nykh nauk [International journal of social sciences]. 1994. № 3. (in Russian)
27. Newman L. *Analiz kachestvennykh metodov* [*Analyzing quality data*]. In: Sotsiologicheskie issledovaniya. 1998. № 3, 6, 12. (in Russian)
28. Sartre J.-P. *Problemy metoda* [*The problem of method*]. Moscow: Progress, 1993. (in Russian)
29. Haise D. *Prichinnyy analiz v sotsiologicheskikh issledovaniyakh* [*Causal Analysis*]. Moscow, 1981. (in Russian)
30. Alekseev A.N. *Poznanie cherez deystvie. Fragmenty eksperimental'noy sotsiologii* [*Knowledge through action. Fragments of experimental sociology*]. Vol. 1–3. Moscow: IS RAN, 1993. (in Russian)
31. Romanovskiy N.V. *Istoricheskaya sotsiologiya* [*Historical sociology*]. Moscow, 2009. 320 p. (in Russian)

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