



Development of criminalistics, forensic sciences and constitution of expertology

Rozvoj kriminalistiky, forenzných věd a konstituování expertologie

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Abstract:

The article analyzes the development of criminology and forensic sciences and the influence of Russian criminological science on the development of Czechoslovak criminology. One of the most important theorists of the Russian forensic school, who worked significantly with Professor Pješčak, was Professor Rafail Samueljovič Belkin, DrSc. (1926-2001), which fundamentally influenced the Czechoslovak criminology of the time. One of the most important personalities of the current stage of development of the Russian criminal school is acad. prof. E.R. Rossinska, DrSc. The paper defines the scientific and methodological basis of forensic expertise. Its subject appears to be the methodological, legal and organizational regularity of the implementation of forensic expertise with the aim of defining the origin, formation and development of classes, types and kinds of forensic expertise.

Keywords: Criminalistics, forensic sciences, expertology

Abstrakt:

V článku je analyzovaný vývoj kriminalistiky a forenzných vied a vplyv ruskej kriminalistickej vedy na rozvoj československej kriminalistiky. Jedným z najvýznamnejších teoretikov ruskej kriminalistickej školy, ktorý významne spolupracoval s profesorom Pješčakom bol profesor Rafail Samueljovič Bělkin, DrSc. (1926-2001), ktorý zásadným spôsobom ovplyvnil československú kriminalistiku vtedajšej doby. Jednou z najvýznamnejších osobností súčasnej etapy rozvoja ruskej kriminalistickej školy je akad. prof. E.R. Rossinská, DrSc. V príspevku je vymedzený vedecký a metodický základ súdnej expertológie. Jej predmetom sa javia metodologické, právne a



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organizačné zákonitosti realizácie súdnej expertíznej činnosti s cieľom definovania vzniku, formovania a rozvoja tried, druhov a typov súdnych expertíz.

Kľúčové slová: *expertológia, forenzné vedy, kriminalistika*

Introduction

We present a brief selection from the work of E.R. Rossinska (for the period 1971-2019), currently one of the most important figures in Russian forensic and forensic activities. Before proceeding to the evaluation of the selection of works, it is necessary for current, especially young forensic theorists, if they still exist (for a poorly set up system of doctoral studies, especially at law faculties, but also academies in the Czech Republic and Slovakia), to express the relationship between Czech and Slovak forensic science. to the Russian forensic school, which was a source of basic theoretical knowledge in this area in our countries (Czech Republic, Czechoslovakia), but for many forensic theorists later in the Czech Republic and Slovakia.

The most important pioneer and founder of modern criminological science of the second half of the 20th century in the Czechoslovak Republic was the academic, prof. Ján Pješčak, DrSc. He followed up on the serious foundations created by Bohuslav Němec and personally created a number of forensic textbooks, important scientific monographs, a number of theoretical publications and initiated the systematic development of forensic science, supported and developed scientific education of young and talented forensic scientists and lawyers. In his works, the basic theoretical issues of criminology, which are generally valid and recognized to this day, are elaborated by himself and later under his leadership. These are mainly questions of the concept, subject and system of criminology, the social function of criminology and its place in the system of sciences and basically the whole area of methods and methodology of criminological science and practice.

Criminology at the time relied in a very important way on the theoretical and methodological background of the so-called Russian forensic school, which was, and in many cases is still considered the most important forensic school in some professional and foreign forensic theorists, due to its excellent gnoseological, methodological and theoretical level, which forms the basis for further theoretical development of criminology.

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*Fig. 1 Prof. Ján Pješčak, DrSc.
(Source: personal archive of prof. Porada)*

One of the most important theorists of the Russian forensic school, who worked significantly with Professor Pješčak, was Professor Rafail Samueljovič Belkin, DrSc. (1926-2001), which fundamentally influenced the Czechoslovak forensic science of the time and became our important role model and later a friend. Author of approximately 300 scientific papers, including more than 20 scientific monographs and many textbooks: the first in the history of the three-part comprehensive "Course of Soviet Criminology" (1987-1979), the two-part "Criminology: Problems, Trends and Perspectives" (1987-1988), complete "Criminalistics Encyclopedia (1997), publications such as "History of National Forensic Science" (1999), "Criminalistics: Problems of Today" (2001), "Criminalistics Course" (2001), and many others in which we have often sought ways research).



*Fig. 2 Prof. Rafail Samueljovič Bělkin, DrSc.
(Source: personal archive of prof. Porada)*

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In the publication "History of Criminalistics", prepared by prof. Jiří Straus and František Vavera, F. et al. R. S. Bělkin is deservedly listed in the honorary first place in the chapter Personalities of Criminology, and his concise description is given: "he is an important Russian criminologist, pedagogue, professor of criminology. He was one of the important pioneers of criminology in the second half of the 20th century in the Soviet Union, then Russia. His work affected the entire bloc of the Soviet Union, he also influenced the development of the system of criminology in our country. Bělkin divides the criminologist into four parts: general theory of criminology, criminological technique, criminological tactics and criminological methodology. This division was well received especially in the pedagogical process of teaching criminology. As time has shown, this pedagogical aspect is very useful for teaching, so criminology is divided into four pedagogical disciplines. He was the founder of an independent scientific school, which was generally recognized in the Soviet Union, Russia, but also abroad. He is an important co-author of a triptych of authors from the University of the National Security Corps under the leadership of the author's team of prof. Jana Pješčak [1]. Some of the current forensic theorists (Z. Konrád, V. Porada, V., J. Suchánek) are co-authors of this first Czechoslovak-Russian textbook [2].



*Fig. 3 Prof. Rafail Samueljovič Bělkin during a friendly "forensic conversation" at a meeting of the Institute of Forensics in Bratislava in 1983
(Source: personal archive of prof. Porada)*

Selection of the work and its path to the top of science

The Russian Criminalistics School still boasts not only excellent results in the field of theory and methodology of criminological science and practice, but also other related disciplines, especially forensic sciences, related to criminology, criminology and criminal law. One of the most important personalities of the current stage of development of the Russian forensic school is the daughter of prof. R.S. Bělkina - acad. prof. E.R. Rossinska, DrSc. She is currently the Director of the Institute of

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Forensic Expertise, Head of the Department of Forensic Expertise of Moscow State Law University O.E. Kutafina, a deserving employee of the Russian Federation, an honorary figure in the Russian Federation of Higher Education, doctor of law, doctor of law, professor of law, academic (member of the Academy of Natural Sciences), winner of the PAEH Academy Presidium Award, president of the Association of Educational Institutions "Forensic Expertise".

He began his career in 1971 by graduating from the M. Lomonosov Moscow Institute of Pure Chemical Technology. In a follow-up study at the Institute of Elements of Organic Compounds, which was led for many years by the President of the Academy of Sciences of the USSR, Academician A.N. Nesvojanem, she enthusiastically dealt with the issue of X-ray structural analysis and gained excellent knowledge of these methods.

She later worked in the laboratory of structural analysis with a focus on structural crystallography under the leadership of the founder of the department A.I. Kitaygovodsky, collaborator of the important physicist XX. century, Nobel Prize winner, academician Leo Davidovich Landau.

The beginning of her scientific activity was very promising and she was recommended a postgraduate study, which, however, was negatively affected by her temporary emigration to Israel. After her return, from 1972 to 1979, she focused on the issue of vacuum deposition of oxide layers for the subsequent detection of the young structure of high-speed shortwave lasers, the problems of their X-ray structural analysis and the development of a number of X-ray examination methods of materials and mixtures.



Fig. 4 Publications and photographs by the author (E.R. Rossinská: Избранное. Moskva: Izdatel'stvo Norma, 2019, 680 s., ISBN 978-5-00156-041-8) (Source: personal archive of prof. Porada)

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The amount, intensity and specifics of E.E. Rossinka's research were naturally reflected in a number of non-public scientific reports and inventions, as well as in publicly published works. In addition, at this stage of her scientific research activities, a comprehensive use of results within the framework of physical, chemical and criminological methods was formed, in solving complex tasks in criminological science and expert practice. On this scientific basis, the forensic-expert institutions of the state had the opportunity to use these expert methods for physico-chemical research.

In 1979, E.R. Rossinská participated in the research activities of various expert-forensic departments of the Ministry of the Interior, where she carried out forensic expertise and developed methodologies for X-ray structural and X-ray spectral analysis of factual evidence. The result of this activity was a series of author's works, inventions and scientific-practical contributions and textbooks. Many of these scientific and methodological works have not been publicly published, and only selected publicly available sources are listed in her selected works published in the 1980s.

On the basis of most methods of X-ray analysis of factual evidence developed in the 1980s, a monograph "X-ray-structural analysis in criminology and forensic expertise" was later prepared, from which some publications are selected. The knowledge of the conceptual foundations of the theory of non-destructive research of factual evidence and also new approaches to looking at the concept of forensic technology in the light of changes in the material environment and the knowledge of forensic science relate to this period.

The second stage of her research in criminology is associated with discoveries in the late 80's and early 90's that related to computer information technology. There was an opportunity to use them for a better process of preparation and processing of expertise. Within this stage of its activities, contributions were published concerning recommendations for optimizing the form and content of experts' conclusions based on the so-called "basic" program module based on hybrid support systems for forensic and forensic expertise.

The discovery of computer systems also initiated new types of crimes, changed the ways in which they were committed, and therefore in the late 1990s the need arose to develop new partial methods of investigation. In parallel, the concept of forensic computer technical expertise was formulated. This area can still be considered as the current direction of scientific research.

The end of the 1990s showed her interest in examining the above areas not only in criminal, but also in civil, arbitration and administrative proceedings. A number of studies in the monograph "Judicial Expertise in Criminal, Civil and Arbitration Proceedings" have addressed these issues. These findings were further specified in a number of other follow-up publications.

In 2001, the federal law "On State Forensic Expertise in the Russian Federation" entered into force. Her citations and comments on this law are still relevant today. Because the law did not take into account the activities of non-state forensic experts, it does not even regulate the activities of non-state forensic expert organizations, a number of its articles, which are also focused on monographs in this area, were

focused on this issue. At the same time, this area was also developed with the use of legal knowledge, the concept of judicial normative expertise and its special character in many already existing types was formulated.

The emergence of new scientific results and research in 2010 led to the creation of new educational standards, in which a complete approach to the issue of forensic expertise and its use in practice was established. This was the reason for the elaboration of her professional communications justified by the need to look at criminology as a basic pedagogical discipline for higher legal education, independent of the training profile of a law graduate. All this was connected with the newly formed discussion related to the laws of research of criminological science. Therefore, it can be stated that the elaboration of didactic aspects of legal education in connection with the concept of higher education in the specialization "Forensic Expertise" based on a comprehensive approach and the formation of specialists of the so-called dual competence is another direction of new scientific research E.R. Rossinska.

The final area of scientific and methodological research is the area of creating the so-called conceptual basis of forensic expertise. Its subject appears to be the methodological, legal and organizational regularity of the implementation of forensic expertise with the aim of defining the origin, formation and development of classes, types and types of forensic expertise, its partial theories based on a single and unified methodology of the unified conceptual apparatus. By knowing these laws, it is possible to ensure the unity of legal and organizational security of forensic activities, which will be common to all types of justice, unified expert technologies, standards of technology used, competencies and certification of experts and expert laboratories.

These issues are addressed in a number of publications with regard to the complexity of forensic expertise, the genesis of new types and kinds of expertise, legal, organizational and methodological provision of non-state forensic expertise and expert didactics. Based on the theory of forensic expertise, the concept of the development of anti-corruption expertise of normative acts and projects is also developed.

New directions of scientific knowledge are conditioned by the global process of digitization of all areas of human activity, which on the one hand contributed to the emergence of new types of forensic information available on specific computer media and on the other to the wider use of computer resources for storage, preservation and automated processing and examination of evidence. .

For these reasons, attention in this area is focused in some publications in recent years on creating a conceptual basis for a new theory of information and computer security of criminal activity, including new approaches to computer footprints and the current ways of committing cybercrime and the laws and methodologies of their investigation.

The most significant results

Selected chapters from the publication (on the individual directions of the author's scientific research and methodological activities), which they consider to be of high value, and which have great telling value and significance for our current forensic and forensic expertise:

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1. Some gnoseological questions of the use of X-ray methods of analysis in expert research.
2. Practical experience with the use of X-ray fluorescence analysis in the examination of factual evidence.
3. X-ray-structural analysis in criminology and forensic expertise.
4. Conceptual foundations of the theory of non-destructive methods of research of factual evidence.
5. Fire technical analysis.
6. Optimization of the form and content of expert conclusions based on the basic program module "ATEKS".
7. Assistance systems in criminology and forensic expertise.
8. General issues of forensic expertise.
9. Computer technical expertise.
10. The system of criminological technology in the light of current ideas about the "nature" of criminology
11. Peculiarities of methods of criminal investigation in the sphere of movement of computer information.
12. Subject, tasks and objects of forensic computer - technical expertise.
13. Commentary on the federal law "On state forensic activities in the Russian Federation".
14. Research of computer resources.
15. Issues of improving laws on forensic expertise.
16. Determination and development of forensic linguistic expertise.
17. Special legal knowledge and judicial normative expertise.
18. Forensics and forensic expertise: interrelationships and differences.
19. Criminalistics-discipline of the basic part of higher legal education.
20. Non-state expert institutions - their legal status and organizational forms.
21. Forensic expertise - typical mistakes.
22. Revision of the definition of the subject of criminology-pros and cons.
23. Current ideas about the subject and system of forensic expertise.
24. On the question of the form and content of the expert's conclusions.
25. Genesis and problems of development of new types of forensic expertise.
26. Forensic research of computer means and systems - a new part of forensic technology.
27. Comprehensive approach, the basis of forensic didactics.

28. Forensic expertise: for and against, from the position of current forensic expertise.
29. The legal status of a forensic expert.
30. Factors determining the effectiveness and quality of the conclusions of forensic expertise in criminal proceedings.
31. The concept of digital footprint in criminology.

Conclusion

In conclusion, we would like to mention this suffix: Dear Professor, she was one of the five reviewers of the extensive collective monograph **PORADA, V. a kol. *Kriminalistika, technické, forenzní a kybernetické aspekty. 2. aktualizované a rozšířené vydání.* Plzeň: A. Čeněk, 2020. 1206 s. ISBN 978-80-7380-741-2.** The team I led led the following professor from the esteemed professor:

Получена монография

Глубокоуважаемый господин профессор,

дорогой Виктор Порада!

Большое спасибо за Вашу замечательную монографию, в которой мне выпала честь принять участие. Еще раз хочу поздравить Вас с такой замечательной книгой, которая отражает современное состояние криминалистики и станет, я убеждена, одной из основополагающих в криминалистике XXI века.

В свою очередь хотела бы переслать Вас свою монографию "Избранное".

Желаю Вам здоровья и благополучия в это непростое время.

As the leader of the author's team of this monograph, I must take this opportunity to state publicly that they consider it their duty to acquaint all the co-authors of this scientific monograph with this high rating, and to reiterate with all responsibility that it was a great honor and great inspiration to work on their scientific activities that decisively contributed to the quality of this comprehensive monographic work (from VŠFS Prague were: Prof. V. Porada, Prof. Jiří Straus, Doc. Eduard Bruna, Doc. Markéta Brunová), and further especially: Prof. Viktor Porada, prof. Jiri Straus, doc. Zdeněk Konrád and doc. Jaroslav Suchánek, with whom we worked together at the departments of criminology of the University of SNB and PA CR, for almost 40 years.

The monograph is devoted to the academic prof. JUDr. Ján Pješčak, DrSc., And Professor Rafail Samueljovič Bělkin, DrSc., And, as already mentioned, important representatives of modern criminological science, who are unfortunately no longer among us. We build on the scientific legacy of these greats in the monograph and develop some aspects. I am deeply convinced that its approach and contribution can be a source of inspiration for many younger, emerging forensic theorists, for whom this forensic publication is especially intended.

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And now, after studying the publication "Избранное", they also report that this is an excellent selection of scientific publications by Prof. ER Rossinska (daughter of Professor Rafael Samuejlovič Bělkin), which are the result of her long-term efforts. I can recommend it as a cross-sectional publication of the results of the current Russian forensic school not only to doctoral students, but to all those who are serious about science, research and development in forensics and forensic science, and who should not overlook the presented results and advances of world-renowned forensics. school, which stood, as already mentioned at the establishment of criminology science in the Czechoslovak Socialist Republic, now the Czech Republic and Slovakia. This article was created as an honor akad. prof. E. R. Rossinska, DrSc.

References

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- [2] PJEŠČAK, J., BĚLKIN, R.S. *Kriminalistika I., II., III.* Praha: VŠ SNB, 1985, 748 s

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