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CURRENT PROBLEMS AND TRENDS OF INTEGRATION PROCESSES IN FORENSIC EXAMINATION

Lyubov GRYNDEY[1]

Abstract

The article is devoted to the disclosure of the current problems and tendencies of integration processes in the forensic examination. Forensic examination is essentially focused on the use of the achievements of various branches of scientific knowledge in the legal process, and therefore its very nature has an integrational character. Comprehensive forensic expert studies are the most complex forms of integration of specialized knowledge with the involvement of relevant specialists.

In the conditions of the criminal activity of new and especially dangerous forms, on the one hand, and the reform of the criminal justice bodies, the adaptation of Ukrainian legislation to the European one, on the other, the issue of ensuring Ukraine's justice with independent, qualified and focused on using the latest advances in science and technology forensic examination.

Under present conditions, forensic examination is becoming increasingly demanded during pre-trial investigation and judicial review of criminal proceedings, judicial review of cases in other types of proceedings. In this aspect, one of the most important tasks is to determine the nature of complex forensic research and to develop their theoretical and methodological principles.

Keywords:

Forensic examination; integration processes; complex forensic examination; forensic expert activity, theory of forensic examination; subject of forensic examination.

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Problem statement

The term «integration» (from Lat. Integratio - restoration, filling) means uniting into one whole of any parts [15]. This concept is used in many sciences, practical activities and established in the status of general scientific notion [19, 23, 24]. As for the integration processes that take place in the forensic examination, the use of this term is primarily due to its very nature, since forensic expertise is always focused on maximizing the achievements of various branches of scientific knowledge in the legal process during the investigation of crimes and judicial review of criminal proceedings, civil, economic, administrative cases, cases of administrative violations, enforcement proceedings.

The main European documents defining the minimum standards and offering different variants of activity are the following:

1. Guidelines of the European Commission on the Efficiency of Justice (hereinafter referred to as CEPEJ Guidelines) on the role of experts appointed by the Court in trials of Council of Europe member states (adopted at the 24th plenary meeting of the commission, Strasbourg, December 11-12, 2014);

2. Conclusions of the Council and Plan of actions taking into account the developed conclusions of the Council of the European judicial expert scientific branch. In Art. 138 of the CEPEJ Guidelines states that, in accordance with the principles set out in this paper, each member state of the Council of Europe must either introduce legislative provisions relating to the rights and duties of experts in the trial, or monitor or verify compliance with the existing CEPEJ Guiding Principles established in this country the minimum standards of the rules of conduct of experts.

3. Good Practice Guide to Civil Forensic Examination in the European Union: European Expertise and Expert Institutions, issued in October 2015. The recommendations state that they are the result of more than ten years of research, discussion and discussion among stakeholders throughout Europe, with a view to improving the judicial process and ensuring an increase in the trust of citizens and enterprises in the field of justice in both the EU member states and in the living conditions, or work in another country when it comes to resolving cross-border issues.

It should be emphasized that forensic examination is intended for the expert provision of justice, therefore its regulation and strategic directions are directly related to criminal, civil, economic and administrative procedural legislation, which forms the basis for the functioning of judicial expertise. That is why it is necessary to conduct an analysis of the institute of

forensic examinations in order to implement developed strategic directions for the conduct of forensic examinations.

Presentation of basic material of the article

The tendency of integration processes occurring in the field of forensic examination is related to the complexity of research. Modern science considers complex research as one of the regularities of the process of cognition. Forensic examination, which, in order to solve the tasks of legal proceedings, is aimed at the use of knowledge accumulated in various fields of science, in the process of scientific and technological progress, constantly receives the influence of integration processes occurring in these industries. The study of the problems of complex research in forensic examination was reflected in the scientific works of many scholars, both in practical and scientific aspects. R. S. Belkin relates the expansion of the possibilities of forensic examination with the increase of the efficiency of a comprehensive study of material evidence. T. V. Averyanova emphasizes that in the process of complex research the influence of the global process of the present - the integration of scientific knowledge, interpenetration of methods of scientific knowledge [3: 16],[20], [21], [22]. She rightly notes that the application of methods of other sciences in any field of knowledge leads to its enrichment, the development of general scientific foundations, provides conditions for active creativity of scientists. Thus, each object of forensic examination due to its complexity and specifics of solvable problems is investigated by means and methods of several sciences [1: 7]. Based on the above, one can distinguish the following trend: one of the forms of knowledge integration in forensic examination is the integration of methods of various sciences.

Another trend, in our opinion, which emerged in the integration processes taking place in the forensic examination, is that in the application of methods of various sciences, the integration of the scientific knowledge itself takes place. As a result, there are new areas of knowledge. A.I. Wienberg and N.T. Malakhovska indicate that the process of interaction, mutual relations of objective, branch knowledge in the process of studying various objects of research is carried out through the prism of the analysis of the general properties of various objects to the interaction of the sciences that they are exploring.

As a constant trend, one can also consider the continuous interaction of the integration of special scientific knowledge with their differentiation, since during the formation and improvement of the scientific basis of

forensic expertise, they play a significant role, alternately gaining benefits.. The integration function is to use the data obtained in conducting forensic examinations of different types, genera and classes, and systematization of accumulated knowledge, the use of new methods of natural and technical sciences, which can be used in expert research, adapting them to the tasks of forensic examination, evaluating its results in accordance with with the principles of forensic expert knowledge [8]. On this basis, we note that the integration of special knowledge consists mainly in their integration. Differentiation of the same special knowledge contributes to the emergence of new expert specialties, each of which has a certain area of research. At the same time, the extraordinary commitment to the differentiation of knowledge sometimes leads to situations where knowledgeable individuals can work effectively only within their own «expert» specialty and have difficulties when it is necessary to participate in conducting complex examinations. In this regard, it is appropriate to infer C. Boulding's opinion on the organization of systems: «Physicists speak only with physicists, economists with economists; atomic physicists speak only with atomic physicists, and econometricists are econometricists. I would like to know if science has shrunk in a cluster of walls separated by hermits, each of which mumble itself words in a special language, which can only be understood by himself… The spread of specialized deafness means that someone who needs to know something that someone else knows is not able to understand another due to the lack of generalized hearing» [13]. This is also the case in expert practice where a forensic expert gives priority only to the field of science or technology he possesses without trying to master the knowledge of the «borderline» branches and knowledge in the field of general and separate theories of forensic examination. How can a judicial expert acquire knowledge in the "border" scientific (technical, etc.) sectors? The answer is unique: by mastering the knowledge in the field of the theory of forensic examination and the corresponding methods (techniques) of complex forensic research, which is clearly distinguished as the tendency of forensic examination.

One of the trends in the development of forensic examination is the broad introduction of complexity in the process of creating the latest expert research methods.

Forensic and investigative practice has become the basis for developing methods for solving expert tasks based on the integration of specialist knowledge. The formation of methods of expert research requires a reliable theoretical basis, since practice without theory can not fulfill the functions of a stable lever of the introduction of modern advances in science and technology in the legal process. An important role in this is played by

the development of theoretical provisions of forensic examination. The very nature of the objects of expertise and the peculiarities of the tools used for their research make it possible to use and adapt to the solution of the tasks of forensic examination methods of various sciences.

Thus, we can state that the main tendencies of integration processes in the forensic examination are distinguished in such provisions:

- globalization, as any complex and multidimensional phenomenon, has certain consequences. A special place in this case is the impact of globalization on European integration processes in judicial expertise, which, above all, are manifested through the adaptation of Ukrainian legislation on forensic expertise to European legislation, and, moreover, through the unification of expert research methods for all judicial and expert institutions through their accreditation, respectively to international quality standards;

- forensic examination originated and developed on the basis of the integration of knowledge of different sciences: social (legal, philosophical), technical and natural, that is, on the introduction of ideas and representations of one branch to another, the use of the conceptual apparatus, methods and means of various sciences; - complexity is one of the most important components of the implementation of integration processes in forensic examination and available in any forensic study. However, the forms of complexity are different, which is due to the following factors: the interconnection and interaction of knowledge different in the subject of research and type of science; the emergence at the junction of various branches of knowledge «boundary» disciplines, which are the basis for the separation of expert specialties based on the integration of special knowledge; appointment of complexes of forensic examinations carried out on one case within the subject of proof; comprehensive studies on one field of expertise within one examination; conducting complex forensic examinations.

Each complex expert study represents a unique process of cognition, the results of which are embodied in the conclusion of a court expert, which depends on many objective and subjective factors - the availability of methods for solving expert tasks, the suitability for research of a specific object of expertise, degree of awareness of a person, which conducts research, including experience in conducting complex forensic examinations, etc. The result of complex expert research is difficult to predict, and its individual components, even their aggregate, which did not become the result of integration of knowledge, can not provide a complete picture of the object being studied. Understanding the whole thing is best understood through understanding its parts. However, this in no way means that the

whole can be replaced by a mechanical summation of its constituents. Consequently, it is necessary to realize the need for a holistic (systematic) approach to the phenomena studied by judicial experts in the process of comprehensive research. The complexity of the task is largely due to the fundamental, generalized nature of the concept of «system».

The role and place of the systematic approach in scientific research can be determined on the basis of various interpretations of the content of the concept of integration (as a certain stage of scientific research [6] or as a result of this study. How does integration contribute to the development of science or a separate field of forensic examination? Taking into account the degree of knowledge accumulation and the level of theoretical substantiation, this process is realized through a systematic approach, which can be applied only in the context of a theoretical understanding of the diversity of facts and knowledge already available. Without going into a detailed description of the system approach [4], [22], we will focus on its main properties:

- system - it is any complex object (process or phenomenon), which is a set of interconnected elements, merged into a certain organizational structure;
- for the description and research of complex systems (objects, processes) they are subject to the imaginary dismemberment of the constituent subsystems and elements (with their properties, connections, parameters, etc.);
- each of these systems is a structural part (subsystem) of a more general system;
- all components of the subsystem have hierarchical subordination and interact with each other as part of a single and integral system;
- all connections between subsystems and elements can be presented in the form of direct and return lines indicating the direction (arrow);
- by the lines of communication all elements are interconnected and interact, affecting each other;
- there is a plurality of interconnections between elements of the system: causative; spatial-temporal; structural-functional; hierarchical, etc.;
- some acquired integral properties of the system is no longer a simple, mechanical summation of properties inherent in its elements, but acquire a new, qualitatively higher level - the properties of the emergence.

We analyze the grounds for the division of the concept of «forensic examination». We can divide the forensic examination into classes, which, in turn, are divided into genera, which are subdivided into species and subspecies, for example, through their direct enumeration. The concept that is subdivided is called distributed. The concepts derived from the distribution are called distribution members [7].

So, as a result of the division of the class of forensic examination, we obtain its breeds and species. The reverse process of the transition from composite elements to an integral system is the reconstruction of the object. By reconstructing the components of individual studies conducted by experts from various branches (areas) of knowledge, we get an idea of the essence of complex expertise..

In our opinion, the main importance of the system approach is to create the prerequisites for systematization of scientific knowledge about those or other laws that constitute the subject of the theoretical foundations of forensic examination, which are formed, first, by generalizing the results of all previous scientific studies, and, secondly, deduces forensic examination for a qualitatively new, higher level. R.S. Belkin notes that integration in the process of studying the subject of knowledge allows deeper penetrate into the essence of the object under study, to more fully determine its properties, relationships, structure. It should not be forgotten about the heuristic integration possibilities, allowing to predict still unidentified by various scientific methods [5].

The essence of forensic expert, including complex forensic expert studies, is determined mainly by their subject. Under the subject, they understand what the opinion is about what constitutes its content [12]. The philosophical encyclopedic dictionary interprets the concept of an object as a category that defines a certain integrity, which is isolated from the world of objects in the process of human activity and knowledge. The subject includes only the main, most significant features and properties (in terms of research). From the above definition, it follows that the subject is the most significant, main aspects, properties of the phenomenon under study (a certain category), to which the cognitive activity of the subject of knowledge is directed. In the case of complex forensic expert research, this statement can be interpreted as follows: their subject are those, the most significant, the main aspects of these studies, which is directed to the cognitive activity of a judicial expert.

During the analysis of the provisions on the subject of complex forensic expert research it is necessary to take into account that it is impossible to fully identify the notion of the subject of forensic examination

as procedural, practical activity with the subject of forensic expertise as a branch of scientific knowledge. In order to formulate the concept of the subject of complex forensic expert research, it is first necessary to analyze the definitions of the subject of the relevant branches of scientific knowledge, since the richer the subject that needs to be defined, the more parties it provides for consideration, the more varied may be the definitions proposed on its basis.

There is also a tendency to interpret the subject of forensic examination as information obtained as a result of research by a person who has special knowledge of the evidence presented by a court or investigator to serve as evidence of evidence [10] or as information contained in the object, that is, only that part which has probative value and must be revealed to the court by an informed person. The boundaries of such information are determined by the questions posed by the expert [11].

We consider the correct presentation of the subject of forensic examination as facts (facts, circumstances) of a case established by means of special knowledge, since this corresponds to the meaning of the law [17]. This thesis is most fully described in the works of O. R. Shlyakhov [18]. He emphasized the importance of distinguishing the general concept of the subject of forensic examination and a specific examination (in a particular case) in particular.

It is impossible to determine the subject of forensic expert research without an analysis of an important component of this concept - research. Under research is the process of scientific study of any object, subject in order to identify the laws of its origin, development, change and transformation [9]. That is, expert research is a process of knowing those factual data and circumstances of the case that are part of the circle of the subject of knowledge. Let's try to determine why the subject of complex studies in forensic examination is of paramount importance for establishing their essence? According to the ideas of some scientists, the knowledge of the subject is carried out mainly in general theories or close to them in their nature of construction. It is believed that in integrated science, the integration of knowledge is achieved by object. In addition, in many particularly complex formations (in particular, in systems of interdependent sciences), both of these forms of integration are used, which are most often combined in the unpredictable way [17].

Our view is as follows: the interaction of special knowledge in the conduct of complex judicial-expert studies is determined by their subject, which is closely linked with the tasks facing the expert. So, in order to decide on the mechanism of contact of a vehicle and pedestrian in the process of road traffic, it is necessary to apply a set of special knowledge in the field of

judicial traosology, automotive engineering, medicine, etc. In order to solve the problem of establishing the conformity of licensed samples extracted from a certain person's CDs, it is necessary to apply a set of specialist knowledge in the field of court traosology, technical examination of documents, computer-aided research, research on intellectual property objects, etc. That is, the task itself requires researchers to combine knowledge from individual branches of forensic knowledge into one whole system of knowledge.

The advantages of carrying out integrated expert studies of integration on the subject are to achieve a unified approach to understanding the various aspects of processes and phenomena of diverse nature. Thus, the basic principles of forensic identification (the division of objects into identified and identifying, changing and relatively non-changing, etc.) enable them to be equally applied to the research of any objects, regardless of their nature or type of forensic examination. The doctrine of the trace formation mechanism as a separate forensic theory allows us to achieve the unity of the description of any traces of contact (by the nature of contact, view, topography, etc.): from the fingerprints of a person's hands, her shoes, clothes, etc. to the tracks of vehicles or traces of thermal or chemical nature. The study of the subject of knowledge allows systematically to combine the various aspects of the objects under investigation into a single reflection of the trace of the crime picture and the circumstances of its event, equally correct in relation to each of these objects. As a result of this approach, the concentration of knowledge (information) on a multitude of different processes and phenomena in a single sign system is carried out, «read» by only knowledgeable individuals who have special knowledge in the relevant fields.

Scientific and technological progress and the implementation of scientific achievements in all spheres of activity allowed scientists to identify a group of objective laws of reality, which became the basis for the development of theoretical issues of forensic examination [2]. This made it possible to substantially expand the range of facts and circumstances that constitute the subject of forensic examination and which could not have been established before. At the same time, this allowed to deepen the scope of the concept of the subject of forensic examination.

Conclusions

The study of the integration of special knowledge - as the basis of complex research at the present stage of the development of forensic

examination - leads to the following conclusions: integration of knowledge in forensic examination takes place through the interaction of various sciences, through the integration of their methods, thereby creating new types (families, classes) of forensic examination and expert specialties, which, in turn, requires the development of the latest methods of complex forensic expert research.

When developing the methodology of forensic expert research it is necessary to include in it such structural elements as the subject of research; tasks to be solved; indicative list of solvable issues; research objects; subject (s) of research (requirements for experts in certain specialties); methods used to solve problems (technical conditions for conducting research on methods (standardized and non-standardized).

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