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### COGNITIVE ACTIVITY OF A FORENSIC EXPERT: PSYCHOLOGICAL ASPECT

**Олена Солдатенко, Олександр Юнацький. ПІЗНАВАЛЬНА ДІЯЛЬНІСТЬ СУДОВОГО ЕКСПЕРТА: ПСИХОЛОГІЧНИЙ АСПЕКТ.** Характеризуючи процес експертного дослідження, можна відзначити, що в ньому тісно поєднуються пізнавальна і практична діяльність. Пізнавальна діяльність експерта більш наближена до наукової роботи, проте, відрізняється від неї деякими особливостями.

Проте, не дивлячись на відмінні особливості, пізнавальна діяльність експерта як і наукова робота, заснована на застосуванні спеціальних знань з метою вирішення експертних завдань, тобто головним чином полягає в розумовій діяльності, в основі якої лежить творчий характер.

Як показує практика, пізнавальна діяльність судового експерта передбачає активне співвідношення практичного досвіду та знань, які є продуктом абстракції у формі категорій і понять. Крім того, пізнавальна діяльність судового експерта характеризується необхідністю вирішувати перелік розумових завдань на усіх етапах дослідження. Виникнення і вирішення цих завдань, в першу чергу, пов'язано з об'єктивними умовами, в яких опиняється експерт як суб'єкт експертизи.

Експерт має право висловлювати свою думку, тільки на основі внутрішнього переконання, що лежить в основі концепції висновку експерта. Однак достовірний висновок судовий експерт зробить тільки за умов, коли його внутрішнє переконання буде адекватно відображати результати проведеного дослідження, заснованого на спеціальних знаннях. Тобто основою для формування внутрішнього переконання експерта слугують фактичні дані, що отримані та оцінені експертом тільки на підставі спеціальних знань.

Таким чином, особливість пізнавальної діяльності судового експерта полягає в тому, що його висновок повинен відображати внутрішнє переконання, тобто упевненість експерта в його достовірності. Об'єктивною стороною внутрішнього переконання може бути лише сукупність фактичних даних, встановлених в ході експертного дослідження, незалежно від будь-яких зовнішніх впливів та дій.

**Ключові слова:** *пізнавальна діяльність судового експерта, висновок експерта, принцип внутрішнього переконання, професійні якості судового експерта.*

**Relevance of the study.** Characterizing the process of expert research, it can be noted that it closely combines cognitive and practical activities. Cognitive activity of the expert is closer to scientific work, however, differs from it in some features.

First, according to Art. 242 of the CPC of Ukraine [1], the expert conducts an examination (practical study) at the request of a party to criminal proceedings or on behalf of an investigating judge or court, if special knowledge is required to clarify the circumstances relevant to criminal proceedings. The purpose of the cognitive activity of the expert is to acquire new scientific knowledge, to establish the general patterns of the phenomena being studied, to solve theoretical problems.

Secondly, the cognitive activity of the expert is aimed at identifying a specific phenom-

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enon (properties) of the object under study. The general patterns of this phenomenon are known to the expert as a specialist before the study. And the study itself should only confirm the presence or absence of these patterns in the object of examination. As for the purpose of scientific research, it is primarily to establish in the objects of knowledge of unknown or little-known objective patterns or properties.

Third, the task of practical expert research is ultimately to establish certain evidentiary facts relating to events that have already occurred for certain reasons. This causes, depending on possible situations, the variable use in the study of scientific techniques and tools to establish the process of emergence and identification of physical evidence – the objects of expert research. This kind of variability in research is usually absent.

However, despite the distinctive features, the cognitive activity of the expert as well as scientific work based on the application of special knowledge to solve expert problems, ie mainly consists of mental activity, which is based on creative nature.

**Recent publications review.** One of the indicators of the depth of this problem is the fact that they are often the subject of discussion at scientific conferences, seminars, publications of scientists and practitioners. The activities of the forensic expert in its various manifestations were paid attention to by many scientists (T.V. Averyanova, V.D. Arsenyev, S.F. Bychkova, R.S. Belkin, O.O. Eisman, A.V. Ishchenko, N.I. Klimenko, V.O. Konovalova, Y.G. Korukhov, M.Ya. Segai, A.O. Selivanov, I.V. Pirig, O.R. Ratinov, O.R. Rossinskaya, M.L. Cymbal, M.G. Shcherbakovsky and others). However, certainly not diminishing the contribution of these scientists to this problem, it should be recognized that even today the issues of cognitive activity of forensic experts are relevant.

**The article's objective** is to analyze the various positions on this issue. The novelty of the work is to address the psychological features of the cognitive activity of the forensic expert during the examination and the formation of his conclusion on the basis of the principle of internal conviction.

**Discussion.** As practice shows, the cognitive activity of a forensic expert involves an active relationship of practical experience and knowledge, which are the product of abstraction in the form of categories and concepts. In this case, thinking has a social nature, ie each individual becomes a subject of thinking, after he masters the social experience, language, techniques of mental activity. Thinking helps the expert to achieve the goals, which are the result of cognitive expert activity. The result of this activity is expressed in the form of a decision (conclusion) of a forensic expert on the basis of evaluation of the received information.

In addition, the cognitive activity of a forensic expert is characterized by the need to solve a list of mental tasks at all stages of the study. The emergence and solution of these problems, in the first place, is associated with the objective conditions in which the expert finds himself as a subject of examination. These include the specifics and structure of the problem, which always includes a priori uncertainty, as well as the decision-making process, which is creative in nature and consists of proposing, checking expert versions, evaluating the data and drawing conclusions.

Note that the activities of a forensic expert is characterized by the fact that many problems are not solved according to the traditional scheme and in such cases it is necessary to look for special techniques and methods, model, predict the possibilities and effectiveness of their use. As a rule, these are complex decisions, therefore new receptions, and sometimes also techniques do not always provide correctness of results of research.

It should be noted that the possibility of proper performance of expert activities depends on the qualitative characteristics of both the object under study and the personality traits of the researcher (expert). The more complex the object, the faster the complexity of the relationship increases; the greater the complexity, the less time is left to resolve issues, the more likely errors in the study. To overcome the prospect of one's own mistake, it is necessary, first of all, to overcome oneself, the illusion of ease of solving the situation, to be able to make non-standard decisions. This process in philosophy is called creativity [2, p. 344]. The ability of the expert when using the methodology of expert research to independently find solutions in complex situations that arise in the process of solving various expert tasks, determines the creative nature of expert research. Expert creativity is a mechanism of adaptation of an expert to specific, changing situations that have no analogues in past experience. In such situations, the expert must use all his special knowledge to solve the tasks.

At all stages of cognitive activity, the forensic expert has to face something unknown,

about which he may have no knowledge. In such cases, of some interest are the problems, the solution of which is unconventional, and the logic of the study, based on known methods, does not allow to formulate a specific solution. Then intuitive thinking comes to the rescue as a result of synthesis in search of possible ways of research [3, p. 34].

It should be noted that intuitive thinking, combined with logical, is inherent in expert research in the case of solving very complex problems. Their complexity is explained by many factors, which include: insufficiency, fragmentation of research objects, lack of traditional methods, insufficient level of development of a particular field of forensic science, low competence of the expert. If thinking is not creative, then this fact can lead to a misunderstanding of the processes and phenomena manifested in the objects of study, will negatively affect the transition of intuitive thinking to rational cognition, and therefore will not ensure the truth of the conclusion and may cause error.

In other words, personally perceiving the phenomenon of the external world, reflecting the substantive content of the sensory object in his mind, the expert "includes" his thinking, which defines the information he perceives as a stimulus to their own behavior. Due to the interpretation, evaluative and mental activity of the expert, the boundaries of the perceived object expand [4, p. 123].

It is also important that at the level of interpretation and evaluation of perceived information can be detected error of perception and perception of the object. And in some cases, even on the basis of correct sensory data in the interpretation can be made an erroneous conclusion [5, p. 25]. This may explain the situation when different experts in the study of the same objects on the basis of the same features make ambiguous, sometimes opposite conclusions, which are the result of different interpretations of the features. For example, one expert recognizes the signs as significant, evaluates them as positive (coincidental), another – recognizes these signs as diagnostic, which can not individualize the object.

There are also cases when the subject is unable or unable to identify in time the error in the sensory image or to give a full assessment of the correctly perceived phenomenon. Such situations can be explained, on the one hand, by a rather strong change in the mechanism of reflecting objective reality, and on the other – by the inconsistency of logical thinking due to insufficient knowledge, insufficient practical and social experience, physiological and psychological properties, and the peculiarity of the situation. In general, in such cases there is a separation of the content of knowledge from the conditions of its origin or attribution of this content to other conditions [4, p. 63].

It should be noted that in the course of his activity the forensic expert gives an opinion on his own behalf and bears personal responsibility for it. This means that the expert has the right to express his opinion only on the basis of internal conviction, which underlies the concept of the expert's opinion [6, p. 478; 7, p. 73-76].

In turn, the content of the forensic expert's inner conviction can be defined as the achievement of proof of a position when the expert considers solved the task set before him, his belief in the truth or incorrectness of the results, based on sufficient grounds [8, p. 84].

However, a forensic expert will make a reliable conclusion only if his inner conviction will adequately reflect the results of the study based on specialized knowledge. That is, the basis for the formation of the inner conviction of the expert are the actual data obtained and evaluated by the expert only on the basis of special knowledge.

If a forensic expert draws conclusions not on the basis of the use of special knowledge, but under the influence of information that is not directly related to the objects under investigation - this will lead to the formation of erroneous internal beliefs. Such cases, first of all, include the influence of suggestion. Suggestion is a mental influence on a person in which there is an uncritical perception of the thoughts and will of another person as their own. In psychology, it is divided into direct and indirect [9, p. 140].

As for the formation of the forensic expert's inner conviction, it is rather an indirect suggestion. For example, an expert may draw incorrect conclusions under the influence of the materials of the proceedings, which contain a certain assessment of the object of study, under the influence of the results of the use of computer technology and equipment that are perceived as real. The expert may also be influenced by the information of the investigator, who reports other evidence that in some way answers the questions to be decided by the expert, and he can only confirm this.

Also, the possibility of unintentional suggestion under the influence of the opinions of more experienced (competent) professionals, who may be consulted by an expert, should not

be ruled out. In this case, the decision may not be made on the basis of confidence in the correctness of their conclusions, but based on the views of authoritative colleagues. Negative influence on the correct formation of internal beliefs can also be carried out on the basis of studying the materials of similar examinations.

Among other psychological factors that negatively affect the formation of the inner conviction of the expert, we should mention the professional deformation, which is considered in the special literature as "inertia" in solving mental problems [10]. Its most characteristic manifestations are the reassessment of their capabilities, knowledge, hasty conclusions, ignoring the opinions of their colleagues, simplifying research methods, and so on. The study of the manifestations of occupational deformity and the definition of ways to overcome them are of particular interest. It can be assumed that a significant number of re-examinations are the result of occupational deformity that occurred during the initial examination.

It is necessary to keep in mind the interpersonal relationships in the staff of the expert institution, because they also significantly affect the effectiveness of professional activities. It should be noted that in the relations of participants in expert activities there are aspects that are not subject to legal regulation. For example, ethical relations in the staff of the expert institution, including the relationship between the expert and the head, participants in the commission, comprehensive and re-examinations. Such relationships are built in accordance with the general norms of morality, as well as formal and informal rules of conduct in the team. However, the specifics of expert activity also involves the development of certain subjective qualities that allow the expert to achieve the goals.

It is believed that if over time the expert has not formed observation, attentiveness, logical thinking, then successful work in the field of forensic science is impossible due to the risk of constant mistakes and it is better to change the profession. Among the qualities that also clearly exclude the possibility of engaging in expert activities, ie determine the professional unfitness of the expert, should be mentioned mental inferiority and the presence of defects of the senses.

As for other qualities of a forensic expert, it should be noted that their formation is influenced not only by internal but also external (social) conditions in which they are manifested. These most often include: creativity, heuristics, predicate, objectivity, comprehensiveness and self-criticism.

The expert must also have both operational and long-term memory, both verbal and visual thinking. On this basis, the ability to quickly remember, long-term preservation and accurate reproduction of the features of the object at any stage of expert research.

Among the psychophysiological qualities of a forensic expert should be mentioned emotional balance, ability to concentrate, mental endurance, the ability to quickly switch from one task to another, etc. [11, p. 428-429].

As a result of the constant influence of the conditions of activity of a forensic expert, a subjective set of qualities (skills, abilities) is formed, which is necessary for the successful performance of the duties assigned to him.

**Conclusions.** Thus, the peculiarity of the cognitive activity of a forensic expert is that his/her conclusion should reflect the inner conviction, ie the confidence of the expert in its reliability. The objective side of the inner conviction can be only a set of factual data established during the expert study, regardless of any external influences and actions.

The position of the expert on the truth of the information received by him about the object of examination is made gradually, as a result of verification and evaluation of the obtained data, taking into account the theoretical provisions of science, which he is a specialist, expert practice and personal experience.

Analysis of the levels of knowledge of a forensic expert in conducting research shows that his wrong decisions (conclusions) are influenced by the results of inadequate mental processes and impaired thinking operations. Also, errors in the cognitive activity of forensic experts can occur on the basis of personal mental qualities, in particular due to lack of observation, inattention, lack of creative imagination.

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#### **Abstract**

The paper addresses the features of the forensic expert's cognitive activity during the expertise and the process of drawing a conclusion based on the principle of inner certainty. Some factors which prevent forming of such certainty are considered in the present paper.

The peculiarity of the cognitive activity of a forensic expert is that his/her conclusion should reflect the inner conviction, ie the confidence of the expert in its reliability. The objective side of the inner conviction can be only a set of factual data established during the expert study, regardless of any external influences and actions.

**Keywords:** *cognitive activity of the legal expert, forensic scientist, expertise conclusions, principle of inner certainty, professional qualities of the legal expert, forensic scientist.*