



## Forensic psychological examination with the use of polygraph as a means of proof

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**Abstract.** The growing international interest in the polygraph, driven by both law enforcement demand and commercial incentives, has led to an overstated perception of its evidentiary value in legal proceedings. The purpose of this paper was to determine, based on the analysis of regulatory legal acts, academic publications, national judicial practice, and European Court of Human Rights decisions, the criteria for using the polygraph in proving as one of the methods of forensic psychological examination. The study applied a range of general scientific and legal research methods, including: the system-structural method for analysing the field of criminal proceedings and the practice of using the polygraph; historical and dialectical methods to examine the evolution of academic approaches to polygraph application; the logical-semantic method to clarify key concepts; and the comparative legal method for analysing national legislation, European Court of Human Rights decisions, and judicial practice. The study led to the following conclusions: forensic psychological examination is a comprehensive psychological study to identify the individual psychological characteristics of a participant in criminal proceedings applying a wide range of methods, one of which may be a polygraph; the decision on the use of a polygraph is made by an expert, taking into consideration technological, legal and ethical aspects; the technological aspect is that the polygraph records only the physiological reactions of the person under examination to certain stimuli, which must be assessed by the expert; the legal aspect is the presence in national legislation of clear provisions regarding the subject of a polygraph examination, the procedure for its conduct (methodology) and assessment criteria; the ethical aspect is the inadmissibility of forced or covert use of a polygraph, which provides for an explanation of the rights of the person and the procedure for obtaining written voluntary consent in accordance with the basic

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principle of legal proceedings – the right of a person not to testify against him or herself. The formulated provisions on the use of a polygraph are oriented towards practical use by criminal proceedings participants

**Keywords:** criminal proceeding; traces of psychological origin; physiological processes; expert research; source of evidence; polygram

## Introduction

Criminal proceeding is cognitive activity regulated by the Criminal Procedure Code of Ukraine. (2022) which is aimed at detection, fixation and examining traces of a criminal offense. And traces form the basis for the formation of evidence. Since these offenses are committed in a social environment, their traces are left not only in the material environment, but also in the memory of people. They exist in the form of subjective ideal images associated with a criminal event (traces of psychological origin) which materialised into testimonies, which are a source of evidence. But the testimony can be true and reliable as well as false and unreliable. In this regard, there is a need for their evaluation and verification, which in a number of cases requires the study of the particularities of the mental processes that occur in the mind of a person – the bearer of ideal images and manifest themselves during their behaviour both during a criminal offense commission and during criminal proceedings. These issues are attributed to the competence (subject matter) of forensic psychological examination.

The preparation and conduct of forensic psychological examination in criminal proceedings have become particularly topical in connection with the appearance on the market of a computer polygraph and the promotion of its capabilities in recognising false testimony. A polygraph (“multi writing”) is a computer multi-channel control and measuring system designed to record the dynamics of changes in the physiological indicators of the human body during examination to determine its psycho-emotional state in response to application of certain stimuli using a special method with subsequent reproduction on the monitor screen and storage in the form of a polygram. Thus, a technical tool designed on the basis of computer technology has appeared, which allows detection and recording the physiological reactions of a person, which can be indirectly related to the individual psychological characteristics of a person. In particular, this concerns the possibility of establishing such a psychological characteristic as the presence or absence of a tendency to lie in the person under examination. But when implementing this task, attention is not always paid (and sometimes deliberately ignored) to the problem of establishing a logical connection between a psychological stimulus (question, picture) and a certain physiological reaction of the person being examined. The professional qualifications of the expert psychologist and the degree of their mastery of the polygraph testing methodology are also important.

In Ukraine, the idea of the possibilities of using a polygraph in criminal proceedings has changed over

the years under the influence of foreign experience and national investigative and judicial practice – from euphoria about the “effectiveness of a lie detector” to a critical attitude towards the possibility of using a polygraph to obtain evidence of the truthfulness or falsity of the testimonies provided. An analysis of academic publications showed that their content is quite controversial, which indicates the existence of many unresolved issues that require further research. Thus, S.M. Slowik (2020), studying the evolution of the practice of polygraphology, noted the effectiveness of its methods during interrogations. But from the point of view of evidence, polygraph tests remain unacceptable in the courts of the United Kingdom due to their unreliability. A. Katwala (2020) wrote that polygraph tests can be used to monitor convicted criminals. O. Bowcott (2020) and M. Graham (2023) noted the relevance of the polygraph for monitoring individuals who have committed sexual crimes. At the same time, O.I. Motlyakh (2021) considered forensic psychophysiological examination with the use of polygraph as a means of obtaining evidence. According to the aforementioned author, such an examination can be conducted not only by an expert, but also by an involved specialist (it should be noted that this contradicts the status of a specialist in criminal proceedings in Ukraine). Yu. Marina (2023) believed that it is advisable to use a polygraph not only in criminal proceedings, but also in activities of criminal intelligence and special forces to identify persons involved in crimes and bring them to justice. S. Hradun (2023) saw the problem in the lack of clear regulatory and legal regulation of the use of a polygraph in criminal proceedings. O. Kabanets (2023) based on an analysis of decisions of Ukrainian courts came to the conclusion that an expert who uses a polygraph during the examination of a person does not have the right to determine the truthfulness or falsity of the testimonies provided, because it is a legal assessment. Therefore, the results of the use of a polygraph at the pre-trial investigation, in the opinion of the said author, cannot be accepted by the court as a source of evidence. O. Kurman & A. Balybina (2024) noted the need for legislative regulation of the use of the polygraph in criminal proceedings in Ukraine, as well as the introduction of standardised methods of training polygraph examiners and methods of the polygraph application in criminal proceedings.

As of 2025, a preliminary conclusion can be drawn that in criminal proceedings, the use of polygraph interviewing is possible only in the form of forensic psychological examination, when it is necessary to establish

the individual psychological characteristics of a person that could significantly affect the perception of certain circumstances and the nature of the testimony about them. In accordance with the Order of the Ministry of Justice of Ukraine No. 53/5 (1998), an expert may conduct interviews with the use of a computer polygraph in order to obtain orienting information for forming answers to questions posed by the initiator of the examination. At the same time, questions remain regarding: the content and methodology of expert examination; the place of the polygraph method among other methods of psychological examination; the possibility of influencing the expert's choice of a particular research method by the prosecution or another party in order to obtain the desired result. There are also problems regarding the subject of evaluating the obtained polygraphs and the possibility of using them as sources of evidence. Taking into account the above-mentioned considerations, the purpose of this paper was to determine the possibilities for using a polygraph to obtain information that is important in criminal proceedings, and the necessary conditions for this.

## Materials and Methods

At all stages of the preparation of this paper, a complex of general scientific and special methods of scientific knowledge was used. The starting point for their application was the recognition of the fact that the solution to the issue of using the polygraph in forensic psychological examination is inextricably linked with the interpretation of the possibilities of using this technical tool in other social spheres (service, labour and family relations). Taking this into account, a systemic-and-structural method was applied, according to which criminal proceedings were considered as one of the types of social activity that is under the influence of other types of social activities. In particular, this concerns the use of technical means to study the inner world of a person, determine their individual psychological characteristics, which are taken into consideration when establishing certain legal relations with a person and observing this person's rights.

Application of dialectical and historical methods allowed to determine the tendency in the evolution of academic views on the possibilities of using a polygraph during operative and searching activities, pre-trial investigation and judicial proceedings. In the process of preparing this paper, the method of logical-and-semantic analysis was also used to clarify the origin of the concept of "polygraph". It was important to realise that achieving the goal of the paper requires the use of the comparative legal analysis method. It was applied for the analysis of the legal regulation of the use of the polygraph in the countries of the European Union, as well as the decisions of the European Court of Human Rights (ECtHR) and national courts of Ukraine. The comparative legal analysis method was also used to determine the status

of a forensic expert psychologist in criminal proceedings based on the analysis of various regulatory legal acts.

At all stages of the preparation of this paper, methods of formal logic (analysis, synthesis, induction, deduction, abstraction) were used, in particular when processing regulatory legal acts, academic publications, studying court decisions in cases where the polygraph was used. These methods were also used for determination of the subject matter of forensic psychological examination and the expert's assessment of the results of the polygraph interview in the course of its conduct, forming conclusions, and determining directions for further research into the issues of the use of the polygraph in criminal proceedings.

When preparing this paper, the provisions of criminal procedural legislation of Ukraine were analysed, which are related to the expert's opinion and status of an expert in criminal proceedings according to clause 11, part 2 of article 65, articles 101, 102, 356 of the Criminal Procedural Code of Ukraine (Criminal Procedure Code of Ukraine, 2022), the provisions of the Law of Ukraine No. 4038-XII (1994), Order of the Ministry of Justice of Ukraine No. 1350/5 (2015), as well as instructions on the use of the polygraph in the activities of individual ministries and agencies of Ukraine.

Thus, the authors searched and analysed the regulatory framework for the use of polygraphs in forensic psychological examination and academic studies on this issue. The search was carried out using the following keywords: psychophysiological examination, criminal proceedings, evidence, polygraph, forensic examination, false testimony, individual psychological characteristics, physiological reactions, methods of psychological research. Based on the analysis of the collected information, conclusions were formulated and prospects for further research were determined.

## Results and Discussion

With the advent of the computer polygraph, Criminalistics professionals in Ukraine had high hopes for the possibility of revealing the circumstances of a crime that are deliberately concealed by a person during preliminary questioning and interrogations. The point was to expose the falsity of testimony and obtain relevant evidence using this technical tool. To a large extent, such expectations were due to the promotion of the polygraph as a lie detector. The experience of using this technical tool in other countries, where it began to be used in the fight against crime much earlier, had a significant impact on the ideas of Ukrainian academics and practitioners. But this experience was not unambiguous, different countries had their own history of using the polygraph by law enforcement agencies and its assessment by the court, which was due to socio-cultural particularities of each country.

Thus, in the European Union there are countries (Federal Republic of Germany, France, Italy) in which

there is a complete ban on the use of the polygraph due to the influence on its results of a number of factors that are not subject to control by the examiner (unreliability of the results). In other countries (Great Britain, Poland) the use of the polygraph is allowed, but only in certain areas and with reservations (Minka, 2023). This technical tool of psychophysiological control is also used on other continents. In particular, in the USA, Japan, Canada, Israel, South Korea, Turkey, evidence obtained using a polygraph can be presented in court. For example, Japan is recognised as one of the countries with a high prevalence of polygraph use in criminal proceedings regarding serious crimes. However, the high validity of the results of the polygraph interview and dependence of these results on the level of qualification of the expert are taken into account. Therefore, training of the experts is carried out exclusively in a state institution, which is the National Research Institute of Police Sciences. Candidates must have a higher education with a degree of not lower than a bachelor's degree and specialisation in psychology or behavioural sciences (Zubovskiy, 2017). The experience regarding history, current state and prospects of the use of the polygraph in judicial proceedings of Ukraine's closest western neighbour – Poland is interesting. For a considerable time, the Polish Criminal Procedure Code (entered into force in 1997) effectively prohibited the use of technical means aimed at checking the psychophysiological reactions of the interrogated person. However, in 2003, the Code was supplemented with a separate article (192 a/2), where it was stated that if the person being examined gives consent, the expert is permitted to use technical tools designed to monitor the individual's involuntary physiological responses (Law of Poland No. 89, Item 555, 1997). This ended the debate about the lack of a clear legal basis for the use of polygraph examinations in criminal proceedings in Poland (Kohutych, 2011).

As noted by T. Minka (2023), the ECtHR has defined its position to the use of the polygraph in criminal proceedings in several of its decisions in individual cases. In particular, as the author noted, the applicants challenged the use of the polygraph in criminal proceedings, arguing that it violated his rights to private life and a fair trial. The ECtHR emphasised that the use of the polygraph must comply with the principles of necessity and proportionality, and the results of the polygraph cannot be the only evidence in a criminal case and should be used only as an additional and auxiliary tool. The use of the polygraph is possible only with the voluntary consent of the person questioned, it should not intrude on the person's private life and encroach on his other rights and freedoms defined in the European Convention on Human Rights. Thus, the criteria for the use of the polygraph in criminal proceedings should be not only the technological capabilities of this tool (often considered as an overwhelming argument), but also legal and ethical factors. In this regard, it should be

emphasised that the ECtHR does not assess the evidentiary value of the results of the use of the polygraph, it considers only those aspects of its use that are related to the observance of human rights, as defined in the European Convention on Human Rights. It seems that the requirements of the ECtHR should also be taken into account when deciding on the use of the polygraph by defence and security agencies, in particular in the process of recruitment, internal investigations, counterintelligence activities, and criminal proceedings (Butenko, 2022; Widacki, 2023).

In the course of academic discussions, where the methodology of polygraph interviewing was assessed in terms of compliance with the requirements of appropriateness, reliability and admissibility of evidence, it was stated that the use of the polygraph in this aspect is possible only in the form of forensic psychological examination. At the same time, it so happened that the use of the polygraph in the psychological examination led to the forming of a separate type of psychological expertise, which began to be called psychological examination with the use of the polygraph. The expression "to pass a polygraph test" became popular among participants in criminal proceedings. But in fact, this is a psychophysiological examination of a certain person to establish their individual psychological characteristics that affect the truthfulness or falsity of their testimony regarding the circumstances related to the crime (verification of truthfulness).

In this regard, it should be noted that a number of research methods may be used during psychological examination of the mental activity of a certain person, which could influence their behaviour during the criminal offense commission, formation of corresponding images and their reconstruction during the pre-trial investigation and trial. Usually, psychological issues that have legal significance must be resolved during the pre-trial investigation, what imposes a corresponding obligation on the prosecution. But the defence may also initiate a forensic psychological examination when it believes that in this way it can obtain data for protection the rights and legitimate interests of the suspect. Thus, the expertise has an extremely wide range of applications, since any type of human activity is accompanied by specific psychological processes (Types of forensic psychological examinations, 2025). It is worth noting that one of the tasks of forensic expert psychologists is to check the fundamental ability of the person under examination to correctly perceive the circumstances that are important for the criminal proceedings, and the ability to provide appropriate testimony about them, taking into account their age and individual psychological characteristics. However, the competence of experts in no way includes assessing the truthfulness or falsity of the testimonies given by the persons under examination during the pre-trial investigation – this is the exclusive competence of the pre-trial investigation body, and ultimately the court.

To understand the essence of forensic psychological examination and determine its capabilities, it is important to consider the methods of expert examination of such a complex phenomenon as human psychics. O. Vavryniv (2023) distinguished methods of psychological and socio-psychological research at two levels – theoretical and empirical. The methodology of psychological examination is a set of methods and techniques, as well as the forms and methods of their application, with the help of which psychological phenomena and processes are explored. Generalised data on the methods applied by psychologists in individual methodologies include: psychophysiological methods (diagnosis of pulse, blood pressure, galvanic skin reactions, etc.); content analysis (diagnosis based on texts and oral messages); projective methods (research through reactions to unstructured objects or situations); questionnaires with different statements and answers; objective testing with a single correct answer (intelligence or achievement tests); standardised observation; analysis of the products of the subject's activity; psychological interview (Psychodiagnostic Methods, 2023).

The methods of conducting forensic examinations (except for forensic medical and forensic psychiatric) are subject to certification and state registration by the Ministry of Justice of Ukraine in accordance with the established procedure (Resolution of the Cabinet of Ministers of Ukraine No. 595-p, 2008). Forensic psychological examination applies methodology that includes a set of methods since it examines rather complex mechanism of the behaviour of a certain person associated with the commission of a criminal offense. In each specific case, the expert independently chooses one or another method of psychological examination depending on the issues that are set for the forensic expert to resolve. According to paragraph 1.4 of the Instructions on the assignment and conduct of forensic examinations and expert research, determining the method of conducting the examination (choice of certain methods, methodology of examination) is within the competence of the expert (Order of the Ministry of Justice of Ukraine No. 1350/5, 1998). In this regard, it is necessary to realise that the party to the criminal proceedings has no right to force the expert to choose certain examination methods or to be guided by certain special literature. Otherwise, this would be a gross violation of the prohibition on entrusting anyone with the conduct of a forensic examination (Law of Ukraine No. 4038-XII, 1994). The party to the criminal proceedings may only initiate the interrogation of the expert in court, where, after taking the oath, the expert may be asked questions about the chosen methodology of the examination, provide justification for choice of the methodology and explanation of the conclusion provided (Part 7 of Article 101, Part 3 of Article 356 of the Criminal Procedure Code of Ukraine, 2022).

Based on the abovementioned facts, the popularisation of psychological examination with emphasis on the

use of a polygraph is not always justified. American psychologist W. Iacono (2001), known for the academic research on the neurocognitive and mental health of adolescents, noted that there is no specific physiological reaction associated with lying. Therefore, it is impossible to ask a person to answer relevant questions about the alleged crime (for example, "Did you hit John?"), record the reactions of the nervous system and ensure the determination of truthfulness. Combination of control and comparative questions does not ensure adequate psychological control of emotional impact too. Bar community of Singapore (James-Civetta, 2019) and British Columbia (Provincial Court of British Columbia, 2016) are of similar opinion and provide their clients with recommendations on behaviour during psychological testing with the use of a polygraph.

When deciding on the appropriateness of conducting a psychological examination using a polygraph, it is worth considering that it is incorrect to single out a separate type of psychological examination based on the use of a technical tool (polygraph). The emphasis is placed only on psychophysiological diagnostic methods. It should also be taken into consideration that psychophysiology is a new scientific field that arose at the junction of psychology and physiology and tries to establish the laws of how physiological processes generate mental phenomena and vice versa. But this task has not yet been finally solved, although it is placed in one of the first places in modern science (Klymenko, 2021; Degtyarenko & Kovylyna, 2022; Kolyada, 2022).

When making a decision on the use of a polygraph to establish the individual psychological characteristics of a certain participant in criminal proceedings, which could significantly affect their perception of certain circumstances and their reconstruction, it is necessary to take into account problematic issues of a technological, legal and ethical nature. The problematic feature of the technological aspect is that the polygraph does not register the truthfulness or falsity of testimony, but the physiological reactions of the examined person to certain stimuli in the course of the examination (they may be related to the event under investigation or be extraneous). The legal aspect is the presence in national legislation of clear provisions regarding the subject of a polygraph study, its procedure (methodology) and assessment criteria. Ethically, the use of a polygraph implies the inadmissibility of forced or covert application, which involves explaining the rights of the person and the procedure for obtaining written voluntary consent. This is a basic principle of legal proceedings – the right of a person not to testify against themselves (the right to silence). There is a reason to assume that the promoted "effectiveness" of the polygraph in exposing and proving guilt in criminal proceedings is not so much related to obtaining evidence with its help, but rather due to the psychological impact of using a "lie detector".

The resolution of the investigator (prosecutor) or the order of the defence to conduct a forensic

psychological examination with the use of a polygraph contains not only the questions (tasks), but also the requirements (instructions) on the means of their solution, which is a violation of the legislation regulating forensic expert activities. Since as of 2025 there are no methodologies for using a polygraph in psychological examinations that have passed state certification in Ukraine, the expert is granted the right to conduct an interview with the use of a computer polygraph in the framework of existing approved and certified methodologies. The purpose of such an interview is to obtain orienting information regarding: the degree of probability of the information reported by the interviewee; the completeness of the information provided by the interviewee; the source of the information received by the interviewee; the interviewee's ideas about a certain event; other orienting information necessary for constructing clues for the investigation of certain events.

The idea of considering a polygraph as a technical means by which the truth or falsity of the testimony given by a person during a pre-trial investigation or trial is erroneous. Its use by forensic psychologists allows only to detect the physiological reactions of the person under examination to questions related to certain circumstances. These reactions may to some extent indicate the person's awareness or lack of awareness of them. That is, the use of a polygraph in the framework of forensic psychological examination can provide the expert with only certain guidelines for answering the question of whether the person under examination has individual psychological characteristics that could significantly affect the nature of their testimony in the case. In this regard, the person is excluded from asking two types of questions that are typical of Russian practice and are used mostly by operational officers during interviews: questions related to situations when a person (suspect, witness or victim) hides their awareness of the circumstances of the crime under investigation: are there psychophysiological reactions detected during the polygraph examination that indicate that the person has information about the details of what happened? If so, what information could they have? Under what circumstances could the person have received this information? Could it have been received at the time of the incident? Questions related to situations when a person demonstrates cooperation with the investigative authorities and gives testimony regarding the circumstances of the case, but there are doubts about their reliability: are the psychophysiological reactions of the person identified during the examination with the use of the polygraph consistent with their testimony about the circumstances of... (specify the characteristics of the crime), namely, that... (specify which testimony requires verification (Forensic Psychological Expertise, 2020)).

Assessing the results of a psychophysiological examination by a forensic psychologist is influenced by two groups of factors. The first group – polygraphs only

record the physiological activity of the person being examined and changes in its parameters, as a reaction to the expert's questions or other stimuli. That is, the polygraph does not register lies, but only excitement, which with a certain degree of probability may indicate a lie being reported. But the physiological reactions cannot accurately determine the cause of this excitement. Such reasons may be physical or psychological exhaustion, irritation due to family or work troubles, fear of negative consequences of the examination, the presence of negative associations and "myths" about the polygraph, deliberate opposition to the examination, etc. For instance, the specialist polygraphist of "Privat-Bank" O.H. Zlatina-Kotkova (2018) noted the negative attitude of the staff towards the polygraph examination for the above reasons, which significantly affects the results of such examinations. External stimuli can also have a significant negative impact on the results (noise outside the window, sounds of footsteps in the corridor, gender and appearance of people present in the room, etc.). Research by E. Elaad (2016) demonstrated that even when using the Guilty Knowledge Test, which is considered more scientifically sound than traditional control questioning, there remains a high probability of false positive or false negative results, especially in real criminal cases. In addition, S.M. Kassin *et al.* (2010) emphasised that the use of techniques involving physiological readings or psychological pressure creates a risk of false confessions and distorted testimony, which is unacceptable in a fair trial.

The second group of factors that can cause errors in the assessment of the results of a polygraph examination are: the level of training of the expert, which is associated with their professional education and mastery of the method of using polygraph equipment (holding higher psychological education at the level of not lower than a specialist, certification of a forensic expert in the specialty "Psychology" and entry into the State Register of Certified Forensic Experts, completion of training in mastering the polygraph of at least 400 hours of classroom lessons); the bias of the expert (since polygraph indicators can be interpreted quite broadly, in cases where the expert has a bias towards the person being examined, there is a risk of an erroneous conclusion).

Thus, unprepared, thoughtless, and illiterate use of a polygraph to examine a certain person can lead to a number of problems related to the evaluation of test results, including the legality of using this method. As a rule, the prosecution initiates the conduct of a forensic psychological examination, implying the use of a polygraph by an expert, to verify the truthfulness of the testimony given by a certain person, which is unacceptable. It is necessary to consider that the forensic expert independently chooses the methodology of the examination to answer the questions posed. Therefore, the investigator (prosecutor) must first consult with the forensic psychologist regarding the content of the

questions and the possibility of answering them with the use of a polygraph. It is necessary to remember that when conducting an interview with the use of a polygraph, the expert can only obtain orienting information, which is not evidence and can only be used to construct investigative clues.

Based on the possibility of obtaining only orienting information when conducting this type of psychological examination, it is necessary to consider the expediency of its conduct taking into account the procedural status of the person under examination. Thus, when deciding on assignment forensic psychological examination of the suspect, it is necessary to take into account that the suspect has the right to provide explanations, testimony regarding the suspicion against them or remain silent, or refuse to testify and answer questions at any moment (Clauses 4, 5 of Part 3 of Article 42 of the Criminal Procedure Code of Ukraine, 2022). Such rights of the suspect give them the opportunity to manipulate the psychological examination with the use of a polygraph during its conduct on completely legal grounds according to the scheme “consent-refusal-consent-refusal” with reference to plausible reasons. Conducting a psychological examination of witnesses and victims with the use of a polygraph in the context of their responsibility for providing knowingly false testimony (Article 384 of the Criminal Procedure Code of Ukraine, 2022) is also problematic. Given that the credibility of a person’s testimony can be assessed exclusively by the court, conducting such an examination often seems inappropriate. For instance, in the ruling of the Case No. 194/342/22 of Terniv City Court of Dnipropetrovsk Oblast (2023), which refused to satisfy the prosecutor’s request to conduct a psychological examination with the use of a polygraph, among other reasons, the court considered the appointment of a psychological examination using a polygraph to be unjustified in this case, reasoning that determining the truthfulness or falsity of witness and victim testimony involves ethical and legal considerations rather than measurable physiological indicators. A polygraph can objectively register only bodily functions and emotional responses to specific stimuli, but it cannot capture or evaluate abstract concepts such as honesty or deception (Kabanets, 2023). It appears that the above judicial assessment of the results of a psychological examination with the use of a polygraph is fully consistent with the decisions of the ECtHR regarding the principles of ethics and the presumption of innocence. Thus, the statement about the evidentiary significance of the results of interviews of participants in criminal proceedings with the use of a polygraph, their outstanding role in the detection and investigation of crimes does not correspond to the basic principles in criminal proceedings. The above provisions are key to understanding the problem of psychological examination using the polygraph as a means of proof.

## Conclusions

Summarising the above, it can be stated that forensic psychological examination is a complex psychological examination which applies a fairly wide range of methods, one of which may be the polygraph. The decision on the use of a polygraph to establish the individual psychological characteristics of a certain participant in criminal proceedings is made by an expert, taking into consideration technological, legal and ethical aspects. The technological aspect is that the polygraph does not register the truthfulness or falsity of testimony but records physiological reactions of the person under examination to certain stimuli, which must be assessed. The legal aspect is the presence in national legislation of clear provisions regarding the subject of a polygraph examination, the procedure for its conduct (methodology) and assessment criteria. Ethically, the use of a polygraph implies the inadmissibility of forced or covert application, which involves explaining the rights of the person and the procedure for obtaining written voluntary consent (basic principle of legal proceedings – the right of a person not to testify against themselves).

The expert chooses the research methodology independently, guided in each individual case by the nature of the questions posed and the criteria of a technological, legal and ethical nature. The questions posed to the expert may only concern the individual psychological characteristics of suspects (accused), witnesses and victims, related to their behaviour and ability to correctly perceive certain circumstances and provide relevant testimony regarding these circumstances. It is unacceptable to use a polygraph forcibly or covertly, to exert psychological pressure on a person with an emphasis on the “accuracy and infallibility of a lie detector”. It is mandatory to obtain the person’s written consent to undergo psychophysiological testing with the use of a polygraph, which must be accompanied by an explanation of the right to remain silent and the filling in of an appropriate protocol.

It is fundamentally important that the party to the criminal proceedings, who initiates the forensic psychological examination determines only the objective of the examination (i.e., the person) and the list of questions (tasks) to be addressed by such an examination, taking into account the capabilities of this examination to solve them. But the initiator of the examination does not have the right to determine the methodology for the expert examination as this falls under the exclusive competence of the forensic psychologist. When solving the questions posed regarding the individual psychological characteristics, the expert may conduct an interview with application of a polygraph, which is the use of psychophysiological diagnostic methods. But the goal in this case was to obtain orienting information for resolving the issues raised by the expert. Such orienting information can be used by the initiator of

the forensic psychological examination only to construct clues that must be verified by procedural means. Therefore, information obtained with the use of a polygraph about the person under examination cannot be considered as an assessment of the statements given by them during the pre-trial investigation from the point of view of their truthfulness or falsity, since it is the exclusive competence of the court. This paper does not claim to solve all the problematic issues of conducting forensic psychological examinations in criminal proceedings but invites to their further study. In particular, the problem of the quality of interviews with the

use of a polygraph in human resources management practices in defence, security, and law enforcement agencies deserves additional attention.

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## Психологічна експертиза із використанням поліграфа як засіб доказування

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**Анотація.** Зростаючий міжнародний інтерес до поліграфа, зумовлений як попитом правоохоронних органів, так і комерційними стимулами, призвів до перебільшеного сприйняття його доказової цінності в судочинстві. Метою цієї роботи було визначення на основі аналізу нормативно-правових актів, наукових публікацій, національної судової практики та рішень Європейського суду з прав людини, критеріїв використання поліграфа в доказуванні як одного з методів судово-психологічної експертизи. У дослідженні було застосовано низку загальнонаукових та правових методів дослідження, зокрема: системно-структурний метод для аналізу сфери кримінального судочинства та практики використання поліграфа; історичний та діалектичний методи для вивчення еволюції академічних підходів до застосування поліграфа; логіко-семантичний метод для уточнення ключових понять; та порівняльно-правовий метод для аналізу національного законодавства, рішень Європейського суду з прав людини та судової практики. Дослідження призвело до таких висновків: судово-психологічна експертиза – це комплексне психологічне дослідження для виявлення індивідуально-психологічних характеристик учасника кримінального провадження із застосуванням широкого спектру методів, одним з яких може бути поліграф; Рішення про використання поліграфа приймає експерт, враховуючи технологічні, правові та етичні аспекти; технологічний аспект полягає в тому, що поліграф фіксує лише фізіологічні реакції особи, що обстежується, на певні подразники, які має оцінити експерт; юридичний аспект – наявність у національному законодавстві чітких положень щодо предмета обстеження на поліграфі, порядку його проведення (методики) та критеріїв оцінки; етичний аспект – неприпустимість примусового або прихованого використання поліграфа, що передбачає роз'яснення прав особи та порядку отримання письмової добровільної згоди відповідно до основного принципу судочинства – права особи не свідчити проти себе. Сформульовані положення щодо використання поліграфа орієнтовані на практичне використання учасниками кримінального провадження

**Ключові слова:** кримінальне провадження; сліди психологічного походження; фізіологічні процеси; експертне дослідження; джерело доказів; поліграми