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STUDY OF THE PRACTICAL PHASES THAT CHARACTERIZE THE DEVELOPMENT OF AN APPROPRIATE PROCESS WITHIN THE SIMULATED BEHAVIOR DETECTOR

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Abstract. Law enforcement authorities face significant difficulties in investigating crimes, which requires the use of more sophisticated research methods. Modernization of technical and scientific equipment and continuous training of specialists are priorities to ensure rigorous investigations and efficient justice. Cooperation with international organizations such as Interpol and Europol supports these efforts and allows the exchange of good practices in the investigation of serious crimes.
As for testing with the simulated behavior detector, a logical sequence of steps is followed: preparation, test execution and interpretation of the results. It is essential to follow standardized procedures in order to obtain relevant and reproducible data.

Keywords: truth, law enforcement agencies, legal norms, process, stage, conclusion, interpretation, decipherment, final report.

Introduction

The development of simulated behavior detector testing procedures has undergone remarkable evolution over time. During the period 1930-1960, the polygraph test was structured in three main stages: an initial discussion with the test subject (pre-test), followed by the actual interview (the actual testing) and concluded with a post-test discussion.

Significant innovations were made in the 1970s by American specialists Gordon Barland and David Raskin [1]. They introduced an additional step to the simulated behavior detector procedure: expert evaluation of the test results. This addition increased the complexity and accuracy of polygraph analysis.

By 1985, the process had been refined by recognizing the importance of a preparatory phase preceding the actual examination. Thus, the number of phases in the simulated behavior detector test was increased to five.

The basic content

Currently, it is even more detailed, including up to nine different stages, each with its specific role in ensuring the validity and reliability of the test.

A first stage is represented by the process of evaluating the case and determining the possibility of performing the test. The specialist must assess how urgently it is necessary to perform the test, the number of people involved and the mental and physical condition of the subjects. It is essential that the purpose of the test, established by the initiator, is clearly understood by all parties involved, thus ensuring a common basis of understanding. After completing the preliminary analysis, the specialist decides whether to proceed with the initiation of the test or to refuse it. Also, at this stage, additional information necessary for the competent performance of the test may be requested. They may relate to establishing the circumstances of the commission of the act, plans, photographs, video files, etc.

Also at this stage, the circumstances of incompatibility to pass the examination will be analyzed.

The second stage in the polygraph testing process is a detailed analysis of all case materials. At this stage, the polygraph specialist must carefully analyze all the information related to the investigated event and have a thorough discussion with the person responsible for the investigation (be it an operational officer, criminal investigation officer, judge, prosecutor, a member of the security service, or an employee of the human resources department, etc.). If the specialist suspects that certain information is being hidden from him, he must firmly insist on receiving all the facts

relevant to the investigated event. Otherwise, the lack of knowledge about certain details of the case may lead to erroneous conclusions based on the test results.

From the materials of the investigated case, the specialist selects the information that he will use during the polygraph check. This information is classified into three categories:

- information related to the topic of the check, i.e. the reason for which the check is being carried out;
- neutral information, used to formulate neutral questions (to establish a baseline for polygrams). This information must be selected with great care, only from reliable and independent sources, not from the person being tested;
- control information, used to formulate control questions and to ensure the methodological correctness of the procedure in the case of using tests with control questions. Not all control information is suitable for formulating questions in the test battery. It is not recommended to formulate control questions of a personal nature that could infringe on personal freedoms or privacy, if the crime under investigation is not directly related to this topic.

In collecting information for the verification topic, standard investigation requirements should be taken into account, such as:

- the circumstances of the crime: location, time, specific weather conditions;
- detailing the exact location where the crime occurred, the time of day it occurred, and the specific weather conditions at that time are key components that help create a precise context for the questions in the polygraph test. These details can be used to verify the coherence and veracity of the tested person's answers;
- the way in which the offender entered and left the crime scene (through a door, roof, window, balcony, etc.);
- understanding how the offender entered and left the crime scene, along with his specific operating characteristics, is important for designing polygraph test questions. This information not only provides details about the offender's tactics, but also helps to establish a behavioral profile, which can be essential in evaluating the answers and identifying potential inconsistencies;
- damage caused to the victim, objects, property; damage to doors, windows, roof, fence, walls, furniture, etc., types and locations of injuries on the victim's body, position of the victim's body. Information about the injuries suffered by the victim, physical damage to the crime scene (such as doors, windows, roof, fence, walls, furniture), types and locations of injuries on the victim's body, and position of the victim's body are essential for detailing the questions in the polygraph test. This data can help to understand the seriousness of the crime and its impact, providing additional context for interpreting the answers in the polygraph test;
- tools used to commit the crime: weapons, technical devices for opening objects, special equipment, etc. Knowledge of the tools used in the commission of the crime, such as weapons, technical devices for opening objects, or special equipment, is important for formulating specific questions in the polygraph test. Identifying these tools can provide clues about the planning and execution of the crime, contributing to a better understanding of the events and a more accurate analysis of the responses.

Sometimes we can understand whether, in general, it was possible to commit the crime. Analyzing a case from personal practice, when it was assumed that criminals opened a safe with a crowbar and stole the goods from there, after establishing these circumstances, deficiencies in the context and the impossibility of opening an 800 kg safe with a single tool of this type were identified.

- distinctive signs at the scene and object of the crime: what prevented the crime from being committed (barriers, fence, etc.), what facilitated the crime (lack of lighting, proximity to vegetation, ravines, etc.). These details can be used to formulate relevant questions in the polygraph test, helping to establish a clearer profile of the event and the offender;
- distinctive characteristics of the victim: gender, age, constitution, hair, distinctive marks on the body, type and color of clothing, etc. This information can be used in the polygraph test to formulate questions to verify the subject's knowledge of the victim and to assess the accuracy of his answers;
- clues left at the scene of the crime: personal belongings, fingerprints, shoes, blood, crime

weapon, etc. The analysis of clues such as personal effects, which may include things like jewelry or eyeglasses, fingerprints that may indicate the type of contact made with the victim or surrounding objects, footwear that may suggest the size and weight of the suspect, bloodstains that may reveal the degree of violence of the crime or the direction of travel of the offender, and the crime weapon, which may provide details about the premeditation of the act, are key elements. These not only help to reconstruct the crime, but can also be essential in formulating questions for the polygraph test, facilitating a more accurate assessment of the subject's answers and possible connections to the crime;

- objects stolen from the crime scene, their quantity, possible places where they could be hidden. Knowing the details of the stolen objects, including their nature and quantity, is important in understanding the motives for the crime. For example, identifying high-value items may indicate a financial motive, while stealing personal items may suggest a more personal motive. Also, knowing the possible locations where these stolen items could be hidden can provide clues about the offender's post-offense planning and behavior. This information is useful in structuring polygraph test questions, allowing for a more detailed assessment of the subject's knowledge and involvement;
- the initial locations where the stolen items were found. Identifying the locations where the stolen items were originally found can provide valuable information about the offender's path and actions after the crime. For example, if the stolen items are found in a location close to the crime scene, this could indicate haste or a lack of planning on the part of the offender. However, if the items are found in remote or unusual locations, this may suggest more careful planning or the involvement of other people. These details can be essential in the formation of questions for the polygraph test, helping to assess the coherence and logic of the answers of the tested subject;
- vehicles used in the commission of the crime. Information about the vehicles involved in the commission of the crime, such as the type, make, color, license plate number or any other distinguishing marks, is important in understanding how the offender arrived at and left the scene of the crime. For example, the use of a large or specially designed vehicle may indicate planning and the ability to transport bulky objects. Understanding these details can help to construct relevant questions for the polygraph test, providing clues about the mobility and resources of the offender, and can help to assess the accuracy of the answers of the tested person.

We believe that identifying the modus operandi of a crime is a significant step, as it allows the examiner to use this information to search police databases and records to make connections to other similar crimes. For example, if a criminal uses a particular pattern or method, such as a specific way of forcing entry into a place or leaving a particular type of mark at the scene of the crime, this pattern can be compared to existing data to identify possible links or recurrences. This can not only help identify potential suspects who have a history of similar crimes, but it can also expand the understanding of law enforcement officers about the methods and motivations of the criminal. Such connections can be crucial in solving current cases and even in preventing future crimes by providing a broader perspective on criminal activity in a particular area or among certain groups.

A more relevant example would be the famous case of the criminal duo Bonnie and Clyde of the 1930s [2]. They were known for their aggressive and direct modus operandi, frequently using firearms and rarely leaving witnesses behind in the wake of their robberies. Their distinctive modus operandi, which included the use of weapons and their lack of hesitation in shooting witnesses, was a key factor in investigations and efforts to identify and capture them.

Bonnie and Clyde became famous not only for their robberies, but also for the way they managed to evade capture for a long time. Their aggressive modus operandi made investigations focus on certain patterns, which ultimately helped authorities locate and stop them.

It is a clear example of the importance of modus operandi in connecting different crimes and identifying criminals, even in the absence of direct evidence linking a suspect to a particular robbery. Modus operandi becomes an important clue for establishing the criminal’s profile and for the investigation strategy.

Once the case materials are analyzed in detail, the third stage of the polygraph examination begins – transforming the case materials into concrete questions, i.e. developing a battery of tests.

This step is essential to convert all the information and data collected into specific questions that will be used in the polygraph test.

We believe that this process requires special attention to ensure that the questions are relevant, clear, and directly related to the subject of the investigation.

This stage is fundamental in the polygraph examination process, as the quality and accuracy of the questionnaire can significantly influence the test results. Developing the questionnaire involves a deep understanding of the case, along with the ability to formulate questions that are relevant, clear, and concise. The examiner must distinguish between questions that are relevant to the case and irrelevant or neutral ones, to ensure that the polygraph test is as objective and effective as possible.

In addition, the examiner must be careful in formulating the questions to avoid ambiguities and not to mislead the subject. The questionnaire must cover all essential aspects of the case, including direct questions about the investigated act, as well as control questions, which help to assess the subject's basic reactions. This stage requires not only a technical understanding of polygraph procedures, but also an appreciation of the complexity of human behavior and the psychological dynamics of the person being examined.

Over a century of experience in using the polygraph allows us to state that all types of tests have a valid role. For example, in some countries, specialists prefer direct or indirect tests and use them effectively in the investigation of crimes. In the United States, considered a benchmark in polygraph checks, some operators choose specific testing methods. We had the opportunity to meet experts from the United States with 20-40 years of practical experience, who apply exclusively indirect methods in polygraph testing.

From a doctrinal point of view, we note that, regardless of the polygraph examination methodology adopted, there are three fundamental tests. Ideally, any polygraph examination should begin with a search test of an investigative type. This test provides the opportunity for a survey of the criminal past of the person being examined.

The second test is an indirect one – the „Control Question Technique” (*Control Question Technique – CQT*) – and is a method used in lie detector testing. In this type of test, a person’s physiological responses to questions that are directly related to the subject of the investigation are compared with the responses to other irrelevant questions, used for comparison purposes. These comparison questions are known as control questions and are used to determine whether a person is lying or telling the truth by observing differences in physiological responses.

The CQT model is based on the assumption that an individual who is lying will have different physiological responses to relevant questions compared to control questions. Control questions are designed so that most people would answer honestly, but are tempted to lie, which may lead to different physiological responses to relevant questions [3].

Another test is the Concealed Information Test (*Concealed Information Test* – CIT), also known as the „Concealed Circumstances Knowledge Test”. This is a polygraph methodology designed to identify a person’s knowledge of certain aspects or circumstances related to a crime. This test is valuable in that the circumstances of the crime are best and most fully known to the perpetrator. CIT assesses physiological and behavioral differences in a person when exposed to concealed information compared to controls. Although CIT has received extensive empirical support in laboratory studies, the scientific validity of the method also requires a theoretical understanding of its underlying mechanisms [4].

We estimate that the accuracy of these question sets could be as high as 95%. Challenges include the difficulty of collecting data for the test and the relatively long time required to obtain information and prepare the test. If necessary, a stimulus test is used, preferably at the beginning.

These three tests are essential in any polygraph procedure. When formulating the questions, it is important to keep in mind that success depends 99% on the quality of the prepared tests.

There are views in the doctrine that by analyzing handwritten texts, falsehood in statements can be identified. This approach is based on the idea that certain characteristics of writing, such as the volume of text, the speed of writing, the inclination of the letters, or the location of the text on the page, could reveal clues about the authenticity or falsity of the information presented. However, our

research has shown that these variables, although relevant in certain contexts, are not sufficient to confirm with certainty the presence of concealment or falsehood in statements.

Our study, which analyzed handwritten texts in the context of investigating simulated behavior, revealed that the length of the text and the speed of writing can vary depending on the subjective relevance of the information to the individual. For example, a text referring to a real experience tends to be longer and written at a higher speed than a made-up text, which requires additional cognitive effort. However, these differences were not consistent enough to constitute stand-alone criteria for identifying falsehood.

Therefore, we concluded that handwriting analysis, although providing valuable clues, must be integrated with other complementary methods, such as polygraph testing and psychocriminalistic techniques, to ensure a more comprehensive and accurate assessment of the veracity of statements. Only through a multidisciplinary approach can a complete picture of the simulated behavior and the motivations underlying the lie be obtained.

The next stage in the polygraph examination process is the logistical organization of the examination. This stage is vital to ensuring the optimal conditions in which the test will be conducted. At this stage, we, as specialists, analyze and establish all the details related to the location where the examination will take place. This includes ensuring an appropriate climate in the room, checking sound insulation, the availability of power sources, the necessary lighting, as well as the presence of essential furniture, such as tables and chairs.

We also plan the duration of the testing procedure very carefully. The allotted time is calculated precisely, even down to the minute, to optimize both the efficiency of the test and the comfort of the person being examined.

It is essential to establish a reserve day for any repetitive or additional events that may be necessary. We also assess the physical and psychological state of the person to be examined, taking into account factors such as the previous night's rest, nutrition, and other aspects that may influence test performance.

All these details are discussed and agreed upon with the initiator of the examination. The examiner must firmly insist on compliance with all the requirements he considers necessary for the qualified conduct of the examination. This attention to detail is necessary to ensure a controlled and professional environment, key elements for the success of the polygraph examination process.

After resolving all organizational issues, the fifth stage begins – conducting the pre-test interview. This interview is essential for the polygraph examination process, as it sets the basis for the actual test.

The pre-test interview is an indispensable component of the polygraph examination process and must always precede the actual test.

The main objectives of this interview are:

- *studying the person being examined and establishing psychological contact* – this stage is essential to better understand the person being examined and to build a relationship based on trust and effective communication. Establishing this rapport facilitates a more relaxed and open environment, vital for the accuracy of the test results;
- *informing the person being examined about the principles of the polygraph* – it is important to explain how the polygraph works and what to expect during the test. This helps to eliminate any misunderstandings or fears and ensure transparency of the process;
- *clarifying the details of the polygraph check* – the specific details of the examination should be discussed and clarified so that the person being examined fully understands what will happen.

It is necessary to remember that after giving instructions on how to behave during testing (to remain calm, not to move, not to stutter, etc.), two types of behavior may occur: a person who considers himself innocent will follow the instructions rigorously, while a person who has committed a crime may try to distort the results by constant movements, talking, scratching, coughing, etc.

The pre-test interview should not be accusatory or have a form of interrogation. Communication should be gentle and friendly, showing interest in the problems of the person being tested, without accusing him.

The beginning of the pre-test interview should focus on establishing psychological contact with the person being tested, thus creating the foundation for an effective and fair examination.

As authors of this study, we address the question „When is it optimal to have the pre-test interview?” with a perspective anchored in detailed analysis and in-depth understanding of the processes involved in the polygraph examination. We understand that the pre-test interview is not just a formality, but a fundamental element that directly influences the efficiency and accuracy of the polygraph test.

We believe that the pre-test interview should take place at least one day before the actual examination. This scheduling allows for a comprehensive assessment of the level of intellectual development of the examined person, his vocabulary and his attitude towards the investigated act. This information is essential for the precise configuration of the set of questions, allowing us to adapt the questions to the specifics and needs of each individual.

This approach also provides sufficient time to process the information obtained during the pre-test interview and to adjust the examination methods depending on the subject's answers and behavior. Thus, we can ensure a better correspondence between the test questions and the individual context of the person examined, which increases the probability of obtaining accurate and relevant results.

Admitting that in polygraph tests conducted for employment, such as, for example, those within the National Anticorruption Center, where candidates often present similar psychological profiles and levels of intellectual development, the pre-test stage may be less complex. In these situations, given the homogeneity of the group of candidates, the personalization of polygraph questions can be effectively carried out even without detailed prior planning of the pre-test interview.

However, when the polygraph is used in the investigation of crimes, the diversity of criminals and the ways in which they commit crimes implies an imperative need for personalization of the tests. This becomes possible only through a meeting and prior discussions, which allow the adaptation of the set of questions to the unique characteristics of each person examined. In these cases, the pre-test stage plays a key role in ensuring the accuracy and effectiveness of the polygraph examination, as it allows for a deep understanding of the psychological and behavioral peculiarities of each individual.

Thus, differentiating the approach to the pre-test stage depending on the specific context of the polygraph examination – whether it is employment or criminal investigations – is essential for effectively adapting the test to the circumstances and individual characteristics of the persons examined.

Some approaches to polygraph testing suggest that the pre-test phase should be conducted several weeks or days in advance of the actual test date. The pre-test interview is a critical part of the polygraph examination, setting the stage for the entire examination. During this phase, the examiner gathers critical information to better understand the case and asks the subject about the issues that will be addressed in the actual test. This approach helps create a comfortable and relaxed environment, contributing to more accurate results during the testing phase.

A review of several sources allows us to observe that practices regarding the timing of the pre-test interview in polygraph examinations vary. For example, an article on Go Law Enforcement suggests that the pre-test interview, which precedes the administration of the polygraph exam, usually takes place on the same day and lasts approximately 20-30 minutes. This interview focuses on a variety of issues, such as the candidate's employment history, driving history, drug use, and criminal history. The goal of this interview is to put the honest candidate in their comfort zone and to heighten the anxiety of a candidate who may have something to hide [5].

On the other hand, the American Police Beat Magazine article by Dave Edmonds emphasizes the importance of a good pre-test interview for rapport building and the use of subtle psychological persuasion techniques. In this case, it does not explicitly state when the pre-test interview should take place, but it emphasizes its importance in the overall polygraph examination process and that it should take place in the near future to achieve the basic goal [6].

The pre-test discussion should not, in any case, be conducted in an accusatory manner. The conversation should be gentle and friendly, showing interest in the problems of the person being

tested, without accusing them. It is important that during the pre-test conversation a psychological contact is established with the person being examined.

In the polygraph examination process, establishing a psychological connection with the subject is a fundamental step. This connection begins with a detailed and empathetic conversation, aimed at gaining the subject's trust. The conversation should be guided by a calm rhythm, avoiding manifestations of irritability on the part of the specialist. The goal is to transform the discussion into a trusting dialogue, in which the specialist listens more than he speaks. At this stage, the subject's personal information is verified, including details about family, education, place of work and attitudes towards the events under investigation.

In one of the American works on „lie detection” [7] it is noted that a polygraph examiner must present a professional appearance and, at the same time, exhibit the calmness characteristic of a doctor. It is emphasized that rude behavior should be avoided. Inappropriate manners and an authoritarian attitude can cause fear or anxiety in the person being examined, negatively affecting the effectiveness of the examination.

We believe that in the first 15-20 minutes the specialist must identify the person's character profile and base his communication strategy on this.

The applied research, conducted at Penitentiary No. 9, allows us to analyze how people's statements differ depending on the application of different techniques from psychocriminalistics and applied psychology. The study highlighted that the techniques used, such as the P.E.A.C.E. method, the Reid technique and polygraph testing, had a significant impact on the content and presentation of the statements.

In particular, it was observed that less confrontational techniques, such as P.E.A.C.E., facilitated an initial opening and the establishment of a psychological rapport between the interviewer and the subject, without however obtaining direct confessions or hidden information. At the same time, more incisive techniques, such as that of John Reid, introduced an increased dose of stress and tension, causing subjects to maintain or adapt their lies in the face of psychological pressure.

A key aspect of this research was the use of the polygraph, which demonstrated not only its ability to measure physiological reactions associated with lying, but also the psychological influence it can exert on subjects. At the moment of coupling the sensors, subjects showed a visible nervousness, suggesting that the polygraph can also be used as a tool of psychological manipulation, predisposing the subject to provide more honest information.

These observations emphasize the importance of phasing and integrating these techniques in forensic investigation, each method offering unique insights into the subject's behavior. The research also confirmed the need to include the post-test stage, which facilitated the obtaining of spontaneous confessions, thus indicating its crucial value within the polygraph testing procedure.

Before starting the polygraph test, it is essential to confirm the subject's voluntary consent [8]. It should be clarified that the consent was given without any form of pressure, whether psychological or physical. If the subject indicates that he gave consent under pressure, the specialist should conduct a psychocorrectional discussion, explaining that the polygraph test is performed in the interest of the subject, emphasizing the objectivity and impartiality of the process.

According to Academician A.A. Varlamov, the specialist must present the tested person with a clear, accessible and complete explanation of the essence and conduct of the procedure, adapting the information to the level of understanding of the subject. It is important to emphasize the safety of the test for health and to make comparisons with other familiar medical devices, such as an electrocardiogram or electroencephalogram, in order to reduce any fears. At the same time, the subject must be informed about the possible physiological reactions generated by attempts to hide information or influence the result of the examination.

Forensic psychologist Tudorel Butoi, a specialist in polygraph technique, states that during the interaction with the subject, the polygraph specialist must demonstrate a professional and calm attitude, avoiding any form of pressure or manifestation of distrust. The approach to each subject must be individualized, taking into account their psychological characteristics. It is important to

establish an open and honest communication framework that encourages the subject to provide truthful and relevant information.

During the dialogue, the specialist will address various topics, moving fluidly from one to another to maintain a natural conversational atmosphere. This includes moving from personal information to aspects related to the investigated event and vice versa. It is essential that the specialist maintain a balance between expressing empathy and maintaining a position of authority and professionalism. This helps to create an atmosphere of trust, encouraging the subject to be as open and honest as possible in their answers [9].

A separate position is held by the Russian expert, retired colonel Valerii Korovin, who argues that the polygraph specialist's approach should not be excessively standardized, but adapted to the psychological peculiarities of the tested subject. In some cases, he considers an excessively friendly attitude on the part of the examiner to be counterproductive, suggesting that a certain professional distance or even an authoritarian approach can increase the efficiency of detecting simulated behavior. This opinion is developed in his methodological work intended for practitioners in the field of polygraph testing, in which behavioral flexibility is emphasized as a necessary feature for obtaining relevant results.

Finally, the professional training and communication skills of the polygraph specialist are essential for establishing the truth. Each specialist has a unique style of interaction, but they all share a common goal: determining the veracity of the information provided by the subject. Therefore, each interaction is adapted to best fit the individual characteristics of the subject, thus ensuring the most reliable results in the polygraph investigation process.

In other words, a professional polygraph specialist builds contact with the examined person always taking into account his individual psychological characteristics.

We also consider important the ability of the specialist to understand and evaluate the information that the examined person chooses to communicate before the test, considering it the most favorable for his situation. This “ultimate truth” is the set of information that the person considers most beneficial to be disclosed in the context of the polygraph examination.

In one of the opinions expressed in 2022, Yaroslava Komissarova, a judicial expert and experienced specialist in polygraph examinations, highlighted the importance of the examined person presenting personal statements regarding the actions that will be subject to analysis during the polygraph examination. She noted that it is essential that these statements be expressed verbally in front of the polygraph examiner. This step is vital to ensuring the efficiency and accuracy of the examination, allowing the examiner to gain a clear perspective on the context and circumstances before starting the actual examination.

Starting from the idea expressed by Yaroslava Komissarova, we believe that the initial statements stage in the polygraph examination plays a significant role in establishing a frame of reference for the entire procedure. These statements, made before the actual test, not only provide the examiner with an initial basis for understanding the context and position of the examined person, but also contribute to establishing an important psychological dynamic.

From a psychological point of view, initial statements can play the role of a commitment of responsibility. If the examined person lies at this initial stage, this may indicate a tendency to maintain the same lies or manipulate the truth during the actual test.

Thus, a false initial statement can create a state of tension or guilt, which is detected by the polygraph during the examination. This tension can be interpreted as an indicator of insincerity, even though subsequent responses to specific test questions may be truthful.

In this context, the honesty or lack thereof in the initial statement can have significant implications for how the individual will interact with the subsequent examination process.

For example, if a person chooses to provide insincere information initially, this can set a precedent of distrust and tension, which could influence the results of the polygraph test. On the other hand, a sincere and open approach in initial statements can help establish a baseline of trust and transparency, facilitating better collaboration and more accurate interpretation of answers during the test.

Thus, we interpret Yaroslava Komissarova's position as a recognition of the fundamental importance of the initial stage in the polygraph examination process, emphasizing the role of initial statements in establishing a context of sincerity and openness, which can significantly influence the results of the examination.

Looking at things from a forensic perspective, the moment when the examined person expresses confessional statements can be seen as an initial step in transforming psychological information into legally relevant issues. This initial approach can be considered as an indication of a desire to cooperate or, conversely, of a refusal to collaborate during the investigation of the investigated case. The person's initial attitude can later be interpreted as an intention to assist the investigation or as an attempt to hinder it.

This aspect is important because it not only reflects the psychological state of the examined person, but can also provide valuable clues about his or her approach to the investigation process as a whole.

During the interview, the specialist must convince the examinee of the absolute reliability of the polygraph used and the impossibility of obtaining false information. The principle of operation of the device and the purpose of each sensor are explained in a general form.

First of all, the specialist must assure the examinee that the procedure is completely safe for his health. Here, comparisons of the polygraph with medical equipment previously used by the person, such as an electrocardiograph or electroencephalograph, are particularly appropriate. It is also important to provide the examinee with basic information about the physiological changes that occur in the human body when trying to hide certain information.

When discussing the polygraph, the specialist must draw the examinee's attention to the technical advantages of the device, explaining to him (seemingly in passing) that it is one of the latest and most expensive innovations in the field and that the device has been used in hundreds of examinations without recording a single error.

Following this well-conducted part of the pre-test conversation, the innocent person in relation to the investigated event should be convinced that the polygraph will confirm his innocence. On the other hand, the person involved should realize that concealing any ,,guilty" information is useless.

After discussing in detail the context of the case and all the contradictions presented in its account, as well as the topics of verification and control, it is essential for the polygraph examination specialist to identify and focus on an unambiguous element of the case. The goal of this stage is that the pre-test discussion should end not on contradictory aspects, but in a positive manner. It is recommended that any contradictions be, as far as possible, resolved or diminished at this preliminary stage of the examination.

S.I. Ogloblin and A.Iu. Molceanov states that after the pre-test discussion stage is completed, the polygraph examiner should determine whether it is necessary to adjust the structure of the examination that he has already prepared. Some tests may no longer be relevant or prove unnecessary in light of new information obtained during the preliminary discussion. In this situation, the examiner may decide to eliminate certain tests from the examination plan or, if necessary, add new tests. This adaptation of the examination plan is important to ensure the relevance and effectiveness of the polygraph test, taking into account updated information and the specific context of each person examined.

It can be noted that, in practice, the set of tests used in the polygraph examination is frequently adapted or adjusted depending on the information and clarifications obtained in the stage preceding the actual testing. This preliminary stage is essential to ensure the relevance and effectiveness of the test. Adjustments may include changes to the questions or the introduction of new test items that better respond to the specifics of the case under discussion. Through this process, the aim is to obtain a set of data that is as accurate and conclusive as possible, reflecting not only the physiological responses of the person being examined, but also the psychological and circumstantial context in which he or she is located. Thus, flexibility in adapting the test battery is a key element of the success of the polygraph examination, allowing for a more precise and personalized assessment of each individual case.

Based on the experience and practice accumulated in the field of forensics and the application of polygraph tests, we recommend that, in the context of criminal investigations, the pre-test discussion be scheduled at least one day before the actual testing session. This recommendation comes from the desire to optimize the polygraph examination process in criminal cases. Such an early schedule provides adequate time for both the examiner to reflect and adapt the test battery based on the information obtained, and for the person examined to mentally and emotionally prepare for the test. This approach can lead to more accurate and reliable results in lie detection, while providing a fairer and less stressful framework for the person undergoing the examination. This mode of operation is consistent with best practices in the field and supports the integrity and effectiveness of the criminal investigation process. A detailed discussion before the actual testing constitutes an essential element of the pre-test stage. It is extremely important that the examinee understands the questions put to the test well. Otherwise, the reactions to these questions may be meaningless.

Each verification and control question should be discussed with the examinee in a language that he understands, so that it is clear what each question implies and what it does not imply. If the low intellectual level of the examinee does not allow him to understand the question, it should be reformulated in a simplified form. If the specialist has suspicions that the examinee does not understand the meaning of a particular question well enough, he should invite him to explain how he understood the question.

In this case, it is not advisable to ask directly: “Do you understand the meaning of this question?”, since most examinees, without realizing it, can answer in the affirmative. The specialist should reformulate the control questions, and in some cases even the verification questions, if the examinee recognizes certain facts that fall within the scope of the question and thus reduce its significance in the eyes of the specialist. Sometimes, people being tested only tell part of the truth, so a rephrased question can help identify these half-truths.

Before the polygraph test begins, it is necessary for the person being tested to receive clear and concise instructions on how to behave during the test. These instructions include an explanation of the purpose of the test and the functions of all sensors.

Additionally, we will mention that, during the polygraph test, the person connected to the sensors will not experience pain or other types of sensory discomfort. This information helps to ensure comfort and reduce anxiety of the person being tested, which can influence the accuracy of the test results. This aspect is essential in the polygraph test process, since the sensors are designed to record only physiological responses, without causing discomfort or pain.

In the context of preparing for the polygraph test, it is important for the examiner to ensure that the person being tested is not under the influence of alcoholic beverages, narcotic substances or other stimulants (including energizers), as these substances can modify the physiological responses subject to analysis. We note that, in practice, there is no normative regulation or formalized procedure for verifying these prerequisites, and the assessment is carried out mainly through visual observation and olfactory perception by the examiner.

This preliminary assessment is necessary, because the consumption of substances that alter the normal state can be interpreted as an attempt to influence or evade the results of the test. By identifying these factors, the examiner can make the appropriate decision on whether to continue the test or postpone it to a later period, when the conditions will be more favorable for an objective assessment.

The main aspects that must be communicated by the specialist before the start of the test:

- *response method* – it is necessary for the examined person to answer the polygraph test questions strictly with „yes” or „no” and to do so in a prompt manner. This approach reduces ambiguity and increases the clarity of the answers, ensuring a more accurate assessment of physiological reactions;
- *communication restrictions* – during the test, the examined person is prohibited from making any comments or statements outside the requested answers. This maintains the focus of the test and prevents the results from being influenced by external factors. Comments or explanations can be offered only after the test is completed by the polygraph specialist. There are situations when the person needs to cough or make other movements and in this case the examiner will take short breaks

for relaxation, without leaving the chair. We recommend that examiners plan these short breaks from the very beginning and inform the tested person that he will have the opportunity to relax during the test, but only when the polygraph specialist allows it. Otherwise, excessive movements could be interpreted as attempts to evade testing;

- *breathing control* – it is important for the person being tested to maintain a natural breathing rhythm and avoid artificial control of this process. Unintended changes in breathing rhythm can influence the physiological indicators assessed during the test;
- *maintaining wakefulness* – the person being tested must keep their eyes open throughout the test, except for natural blinking. This ensures constant and effective visual monitoring of the answers;
- *question repetition* – is a standard procedure in polygraph testing and should not be a cause for concern for the person being tested;
- *question order* – the order in which questions are asked during the polygraph test may differ from that discussed in the pre-test interview, which contributes to the objectivity of the test;
- *question clarity* – if the person being tested does not hear or understand a question, they should avoid answering. The question will be clarified and repeated after the respective section of the test;
- *anxiety management* – anxiety felt during testing is a natural phenomenon and should not affect the objectivity of the results. It is important that the person being tested is aware of this and manages this emotional state appropriately.

Conclusions

These instructions contribute to the adequate preparation of the person examined for the polygraph test, ensuring that the process is carried out in optimal conditions and that the results are as precise and objective as possible.

We believe that in the pre-test stage the preliminary discussion plays a fundamental role, contributing to:

- strengthening the conviction among the subjects being evaluated regarding the inherent infallibility of the polygraph examination procedure;
- stimulating and mobilizing the memory function of the individual being examined;
- highlighting and updating in the conscious sphere of the subject the personal meanings associated with the verification or control topics;
- inducing a highly subjective perception of the context and the examination situation;
- orienting the subject in an optimal psychophysiological niche, which is essential for the validity and effectiveness of the examination.

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