#### A. LUNGU

### Andrei Lungu

"Stefan cel Mare" Academy of the Ministry of Internal Affairs, Republic of Moldova

E-mail: andrei.lungu@mai.gov.md

Abstract: In this article we propose to make an analysis and evaluation of some aspects related to the application of the polygraph to the investigation of crimes. Attention will be paid to the professional skills and competences of the polygraph examiner, as well as the need to know the special procedures that can be applied during the testing. We will establish criteria for classifying the profile of the criminal under psycho-criminological and criminological aspects. The circumstances to be elucidated by applying the polygraph to the investigation of acts of terrorism. We will analyze the psycho-criminological profile of the victim, witnesses and other categories of people to be tested by applying the polygraph. We will focus on the manner and methodology of conducting the polygraph examination and make recommendations for further research in the field of polygraph application.

**Keywords:** polygraph, lie detection, stages of polygraph testing, application of polygraph to criminal investigation.

#### Introduction

Forensic science, like other sciences, is constantly developing, improving its subject, object, methods and research tasks. Different methods, procedures and theories are accepted and rejected over time, as a result of the integration of knowledge from different fields of research in forensics.

Forensics as a science is constantly dynamic, progressing through new theses, doctrines, scientific opinions, recommendations, as well as the research of new social phenomena, such as: crime, delinquency, the person of the criminal, etc.

Univ. Prof. Dr. Emilian Stancu, defines forensics as a judicial science, with an autonomous and unitary character, which sums up a set of knowledge about the methods, technical means and tactical procedures, intended for the discovery and investigation of crimes, the identification of the persons involved in their commission and the prevention of antisocial acts " (Stancu, 2010:28).

#### Literature review

Referring to the forensic investigation, we believe that this is a process that aims to restore the event that took place in the past.

Doctor of law, university professor Mihai Gheorghiță believes that the most important element, determinant, of the organizational and psychological structure of the activity of the criminal investigation officer consists in the accumulation and study of the most diverse

factual elements, circumstances, data on the basis of which he will completely restore the event produced in the past, the correlations of the different people involved in that event, as well as the personality of the subject who committed the crime (Gheorghiță, 2015).

More than that, the knowledge activity carried out by the criminal investigation officer consists in the realization of simpler or more complicated thinking operations, in the elaboration of the problem-solving strategy, in the creative approach to situations that require such knowledge activity. The simpler tasks are carried out according to an algorithm, by following some known research rules. For example, the detection and collection of physical evidence and its procedural confirmation is an example of a simple algorithmic task. And the performance of more complicated tasks requires a creative heuristic search for the solution in various problematic situations, including conflict (Chufarovsky, 1997).

In this vein, we believe that forensic psychology has a special role in complementing forensic science, effectively integrating into forensics, facilitating the accomplishment of tasks aimed at combating the criminal phenomenon, as well as helping to prevent and investigate antisocial activities.

In this context, we want to highlight the fact that forensic psychology enriches forensics from a scientific and applied point of view, coming up with valuable studies and analyzes of human behavior in situations related to criminal activity.

It should be noted that psychology developed as a science about the essence, traits, qualitative and quantitative characteristics of mental processes and phenomena, their influence on the formation, transformation of human behavior.

However, the development process of forensic psychology determined the emergence and development of independent fields of psychology, caused by the study and analysis of psychological reactions to different situations, attitudes that affect the formation of behavior in general and criminal behavior in particular.

Prof. Ioan Buş from the Faculty of Psychology of Babeş-Bolyai University Cluj-Napoca defines the object of study of psychocriminology as: judicial investigation, types of investigators, the qualities of investigators, methods of investigating personality in the judicial field, investigating simulated behavior through the technique polygraph, mass media and criminal behavior, mental disorders (Buş, 2016).

We believe that psychocriminology mainly studies the criminal act, the activity of the criminal, his mode of operation, the forms and modalities of criminal actions/inactions, as well as the psycho -criminological and forensic characteristics of the perpetrator and other participants in the commission of the crime.

We also agree with Professor Ioan Buş's position regarding the object of study of psychocriminology, as being related to profiling and the investigation of simulated behavior through the application of the polygraph.

The purpose of the study. The authors propose to make an analysis of the theoretical-applicative aspects of psychocriminological mechanisms in the application of the polygraph in the investigation of crimes.

Applied methods and materials. The research is carried out by capitalizing on the research method specific to legal theory and doctrine, such as: logical method, comparative analysis method, systemic analysis, description, deduction, historical method. The materials

used to carry out the study are the publications of researchers in the field, analytical materials of practitioners, as well as the relevant legislation. Also, the scientific basis of the research is constituted by various studies contained in collections of conference materials, scientific articles, application comments, etc.

### Results obtained and discussion

The development of scientific research, focused on the psychological side, allowed the development of directions related to personality research, behavioral analysis, which in turn contributed to the narrowing of the field of research in forensic psychology and allowed the appearance of studies related to the psychology of the criminal, the psychology of crime, And so on

In this sense, things have evolved and allowed the creation of new scientific approaches and methods adapted to the forensic sciences, aimed at implementing recommendations and provisions in order to investigate crimes and criminals.

Analyzing the aspects that are targeted by psychocriminology, we deduce that they mainly refer to the understanding of criminal behavior, the analysis of intention, the identification of the motivational force of the criminal, the attitude towards the act of the perpetrator.

Criminal psychology performs an analysis of the "inner world" of the criminal, looking for clues that would explain the fraudulent behavior of the person. The causal link between the person's actions and deeds and his/her cognitive process is analyzed.

In this context, the object of study of psychocriminology is not only the mental and cognitive processes of the person, but also their connection with the criminal actions/inactions. A qualitative analysis of criminal behavior will provide us with information about the psyche of the criminal.

The interpretation of criminal behavior is based on some clues, which were obtained as a result of many scientific researches carried out by empirical methods.

Criminal behavior, in essence, is intentional behavior that consists of actions/inactions provided by the Criminal Code. These actions do not happen by chance, but have a deliberate character. Only if a person is aware of the criminal nature of his deed will he be held accountable.

If we were to refer to the scientific research in psychocriminology, we find that they were carried out by:

Analysis and observation in the natural environment.

In the early stages of any scientific investigation, often the most informative way is to observe the phenomenon as it actually happens in real life. This method is observing how animals and humans behave in their natural environment.

If we want to understand a child's aggression and the causes that gave rise to this phenomenon, we can visit their playground and watch what happens before and after one child hits or pushes another.

#### Case Study.

A case study is an in-depth study of a particular person. It differs from observation in that it usually focuses on a single person and does not take place in a natural environment. In

fact, case studies may not involve direct observation of behavior at all, but may rely on interviews with the individual and/or those close to them.

### > The survey.

This includes a questionnaire or interview - subjects are asked to describe their behaviour, feelings or thoughts on certain topics. Survey results summarize the opinions, beliefs and behavior of large groups of people.

From our point of view the disadvantage of surveys is that it is difficult to obtain an unbiased sample. However, surveys have a number of significant advantages: they allow researchers to study phenomena that are difficult or impossible to study by other methods.

We believe that a special place belongs to the experiment-research method that allows changes to the experimental variables in order to obtain conclusions regarding the behavior of the person.

An example of this would be Solomon Asch 's experiment and group conformity. This experiment gave rise to several forms of behavioral approaches and interpretations. (Asch, 1987).

As in any scientific and applied branch of knowledge, in psychocriminology there are certain methods of studying the personality of a criminal in the process of prevention, discovery, research, investigation of crimes.

The methods of knowing the personality of a criminal in relation to crimes and the investigation/research process have a certain structure, which forms a system of methods in forensic psychology.

Considering the aspects mentioned above, we will analyze the contribution of psychocriminology to the process and the method of detecting simulated behavior-procedure applied to the investigation of crimes.

Lying is a ubiquitous phenomenon in all spheres and directions of society. If a lie has no serious consequences, it is treated with condescension or even ignored. Things are different when a lie can play a fatal role in a person's life. We refer to the presence of untruth in the investigation of crimes and the consequences that may arise.

The detection of simulated behavior is of particular importance in the process of investigating/researching crimes, a fact that is conditioned by a multitude of legal and psychological aspects.

Referring to the detection of simulated behavior by applying the polygraph, we specify that this instrument does not detect lies, it is only a device that amplifies and records the psycho-physiological reactions of a person, which appear as a result of an emotion.

These emotions are provoked by the questions of the polygraph specialist and which are built into batteries/sets of questions, made according to certain special rules.

In the case of investigating a person's criminal activity, reactions to stimulus questions are most often caused by fear.

Fear of being discovered, accompanied by the person's understanding of a perspective related to constraints, restrictions, isolation, etc. creates strong emotions of fear.

In our opinion, fear is the driving force that creates the psycho-physiological reactions recorded by the polygraph and interpreted by the polygraphist, but we must also take into account other emotions that are present during the testing.

#### Andrei LUNGU

We also find that the analysis and interpretation of psycho-physiological reactions allows us to understand the reasons for committing the crime. Establishing the motivational force in crime investigation is an extremely important element.

The theory of the formation of lies reported, especially in the investigation of crimes, requires a knowledge of the scientific basis of the formation of psycho-physiological reactions.

In the Explanatory Dictionary of С.И.Ожегова , a lie is defined as "a deliberate distortion of the truth" (Ozhegov, 2007).

A lie, according to J. Masip, is a deliberate attempt to hide factual and/or emotional information and/or manipulate it by verbal and/or non-verbal means to create or maintain in another (or others) a belief that the communicator himself considers false (Masip et al., 2004).

O. Fry defines a lie as an intentional successful or unsuccessful attempt, made without warning, to form a belief in another person that the communicator considers incorrect (Fry, 2006).

According to De-Paulo, lying is a very common communicative phenomenon in everyday life, which includes a variety of situations and tactics (de Paulo et al., 1998).

A definition of lying, which we consider to be very explicit, is that of Paul Ekman - an American scientist and researcher considered one of the most important figures in the psychology of the 21st century. He is famous for being the first person to study the innate nature of emotions with a series of cross-cultural investigations.

Paul Ekman's research was based on the idea that some human characteristics, such as emotions or body language, have a biological origin instead of being purely cultural as previously thought. In this way, Ekman believed that they were universal and tried to prove it with his studies.

Paul Ekman defines a lie as an action by which a person misleads another person, doing it intentionally, without a prior warning of his intention (Ekman, 2010).

A thorough analysis of existing criminal files on certain types of crimes, especially those related to various types of violence, as well as those committed for material interest, allows us **to note** the following trend in the discovery and investigation of crimes.

Carrying out actions to collect evidence (hearing/interviewing witnesses, suspects, victims, etc.), as well as special investigative activities are always accompanied by the production of emotions in these people.

In turn, these emotional states are dictated by the behavioral line and the option chosen by the person to be honest.

In this sense, depending on the behavioral model chosen by the person, the first conclusions can be made in order to elaborate the forensic versions, establish the reason for committing the act, the mode of operation-sources of information for the restoration of the criminal event that happened in the past.

In order to do a good crime investigation, it is quite important to take into account the relationship between emotions, lies and behavioral analysis and assessment of people.

Generalizing the above, we find that in order to ensure an investigation of the crime in the best conditions, it is advisable to use technical-criminological means, including the polygraph, from the very beginning of the activities.

The polygraph is an extremely accurate instrument, with an accuracy of up to 98%. The polygraph specialist has at his disposal several methods that can be applied, depending on the tasks drawn.

Situations in which polygraph examinations would be most effective:

- Obtaining information is possible through traditional police methods and means, but this is associated with exaggerated material costs or involves a large period of time, or the involvement of significant forces;
- It is necessary to obtain the information promptly (within 1-2 days), and traditional methods and means cannot ensure the respective performance, that is, such a task can be solved only by conducting an examination, establishing the presence or absence of the requested information in the memory of a people.

There are crimes where time is the most precious factor. In the case of human trafficking, for example, when a child is trafficked today in Chisinau, tomorrow he is already at the airport in Kiev and in another day he is in Tel Aviv on the operating table as an organ donor, we as a police organ we don't have the luxury of spending time on classic police activities.

 Situations when there are no other possibilities to gather information during the investigation of the crime.

Testing with the application of the polygraph allows us to save time, human efforts, as well as material costs for conducting police activities related to investigation and other actions.

The polygraph examination makes it possible to obtain the following information: narrowing down the circle of suspects, establishing the commission of the illegal act, identifying the participants in the illegal act, evaluating the veracity of the information provided, collecting additional information.

In the stages preceding the testing with the application of the polygraph, the polygraph examiner must familiarize himself with the materials of the file. Often just reading the documents in the file is not enough and in this case, we recommend polygraph specialists to initiate a dialogue with the criminal investigation officer investigating the case.

International practice proves the effectiveness of the polygraphist's participation in the on-site investigation. Very often, the important details for a polygraph test are not found in the report prepared during the on-site investigation. This is explained by the fact that the duties and objectives of the criminal investigation officer do not coincide with those of the polygraph examiner.

We believe that the polygraph specialist must have behavioral analysis skills. The primary information obtained must allow the polygraph specialist to reconstruct the actions of committing the crime. The psychological analysis stage of the person's criminal activity begins with the reproduction/reconstruction of the way the crime was committed. This process, as a rule, boils down to the definition of each action of the criminal and is based on the traces found at the scene, the testimonies of the victim, witnesses, etc.

Sometimes, this process is confused with the fact-by-fact reconstruction with which we agree, on the grounds that it is only desired to define the actions that took place in the criminal field through the lens of psychocriminology.

#### **Conclusions**

For a good performance of his activity, the polygraph examiner must know very well the details of the commission of the crime. This will allow him to understand the criminal behavior, the way of operation, the reason behind the commission of the crime.

The questions in the test battery should focus on the details present at the scene. Some details may only be known to the offender and the team investigating the case. In this sense, it is important to preserve the secrecy of the investigation. Testing according to the CIT method will only be carried out under the conditions when the details of the crime are known only to the offender.

It is commendable that the polygraph specialists in Romania actively collaborate with the employees of the Behavioral Analysis Service within the General Inspectorate of the Romanian Police - a unique structure in Romania, specialized in drawing up reports to assess criminal personality or criminal behavior. The analysis of the criminal's modus operandi is informative for the polygraph examiner and must be taken into account when compiling the set of questions. This could lead to the identification of the perpetrators on other files as well.

Generalizing the above, we recommend practitioners in the detection of simulated behavior through the application of the polygraph in the Republic of Moldova, to deepen their knowledge in the tactics of conducting on-site research, because their participation in the CFL would contribute positively to the quality and veracity of obtaining information hidden.

In the same vein, we come with recommendations to theorists to show more interest in how to capitalize on memorial traces, considering that during the last few decades, the polygraph technique has managed, thanks to technological progress, to achieve new performances in the field of detection of simulated behavior, a fact demonstrated in practice by polygraphologists from different countries.

#### REFERENCES

- 1. Asch, SE. Social Psychology. Oxford University Press. ISBN 0198521723, 1987
- 2. Buş Ioan, Curs "Psihologia Judiciară", 2016
- 3. Chufarovsky Yu.V. Legal psychology. Moscow: rule and system, 1997
- 4. De Paulo B.M., Kashy D. A. "Everyday lies in close and casual relationships." Journal of Personality and Social Psychology, 1998
- 5. Ekman, P. Micro Expression training tool (METT). San Francisco: University of California. 2002.
- 6. Fry O. "Lie, three methods of detecting." Prime-Eurosign, St. Petersburg, 2006
- 7. Gheorghiță M. Tratat de metodică criminalistică.-Chișinău, CEP USM, 2015
- 8. Masip J., Garrido E., Herrero C.. Anales de Psicologia, Vol. 20, Nº 1, pag. 26, 2004
- 9. Ozhegov S.I. Dictionary. M.: AST, Astrel, 2007
- 10. Stancu E, Tratat de Criminalistică, ed. a V-a, Ed. Universul Juridic, București, 2010