COMPARATIVE LAW ANALYSIS OF THE LEGAL FRAMEWORK OF LIE DETECTORS IN OTHER STATES

CZU: 343.98:343.14:340.5

Laura-Maria GIANĂ
Senior Researcher, University of Naples „Federico II", Italy,
E-mail: geanalauramaria@gmail.com

Abstract. *Forensic science is a dynamic scientific discipline, in a continuous process of development and adaptation, having an essential role in the research of crimes by capitalizing on technical-scientific, tactical and methodological methods. As society evolves, the forms of manifestation of crime become increasingly diversified and sophisticated, which requires forensic science to make permanent conceptual and operational adjustments.*

The integration of emerging technologies and modern investigation procedures is an indispensable condition for streamlining the activities of discovering and proving criminal acts, in the context of new forms of crime, such as computer crime, economic crime, drug and human trafficking, money laundering or cross-border crimes.

Developments in the field of forensics express the constant need to strengthen the institutional capacity to combat modern criminal phenomena. Law enforcement agencies are faced with increasingly complex challenges in the investigation process, which determines the use of advanced forensic research methods and the continuous improvement of technical and scientific tools.

Continuous professional training of specialists, standardization of procedures and interinstitutional cooperation are strategic priorities in ensuring efficient and fair justice. In this context, collaboration with international organizations such as Interpol and Europol contributes substantially to the strengthening of national investigative capacities, the exchange of best practices and the harmonization of forensic standards at European and global levels.

Keywords: *forensics, lie detector, legal sciences, international provisions, comparative law, laboratory, specialists.*

Introduction. In international practice, the use of the polygraph in forensic investigations has become a recognized method and applied in over 75 countries around the world, including countries such as the USA, Canada, Japan, India, Israel, Poland, Bulgaria, Romania, Ukraine. These countries have adopted advanced methods of recording and interpreting the psychophysiological reactions of individuals through the polygraph, with the main goal of establishing the degree of their involvement or non-involvement in committing crimes.

The history of the application of the polygraph extends over a period of over a century, and the scientific basis of this method is unanimously recognized. Based on solid principles in the field of physiology and psychology, the polygraph has become an essential investigative tool for identifying and evaluating information relevant to forensic research.

However, the limits of the admissibility of the use of the polygraph in courts of law remain a diverse and controversial topic.

Research on the use of the polygraph in international practice demonstrates that its scope is extremely wide. In addition to its use in the investigation of crimes, the polygraph is also used in the private sector, police activities, the army, special services and other force structures. However, tests performed using the polygraph are most frequently encountered in the activities carried out by police bodies, where it has become an important component in the investigation of crimes and the assessment of the credibility of information.

Basic content. In the United States, John A. Larson and Robert A. Gesell played a significant role in the development of the polygraph. Together, they developed a portable polygraph machine in 1920, which became an essential tool in the investigation of crimes. This machine was used primarily by Larson during his time with the Berkeley police department[1].

Over time, the polygraph testing method and technique were improved by researchers such as Leonarde Keller and John E. Reid[2]. Their contributions enabled the application of the polygraph in criminal proceedings not only in the United States but also in other parts of the world. Improvements in testing methodology and polygraph technique had a significant impact on criminal investigation.

The pioneering role of American researchers in promoting and developing the polygraph technique is undeniable. The United States of America has been at the forefront of innovation in this field, contributing significantly to the advancement and refinement of polygraph instrumentation.

In the USA, the methods used for polygraph testing are varied and adapted depending on the objectives of the testing. This includes the distinction between simple and complex tests, the selection of the assessment method, the type of questions used, and the structure of the test itself. This diversification of methods allows the adaptation of testing techniques to the specific needs of each case and ensures a high degree of accuracy and relevance in the results obtained.

In 1966, the American Polygraph Association (AAP) was founded, a professional organization dedicated to training, the development of polygraph testing methods and standards, and the promotion of the continuous professional growth of polygraph specialists. The AAP is made up of high-quality experts and professionals in the field of polygraph examinations, researchers who share a common commitment to the public interest by developing and promoting correct polygraph application practices, in compliance with scientific and ethical norms.

The American Polygraph Association's primary purpose is to promote excellence in the field of polygraph examination and to provide resources and professional

[1] TURNER. Scientific detection of mensonge dans l'Armée Américaine. In: Revue Moderne de la Police, 1963, no. 61, p. 16.

[2] REID, J.E., INBAU, F.E. Criminal Interrogation and Confessions. 3rd ed. Baltimore: Williams & Wilkins, 1987, p.3-19.

support to its members[3]. By providing high-quality training, developing and revising standards, and organizing conferences and educational events, the AAP contributes to increasing the knowledge and skills of polygraph examiners.

By joining the AAP, members commit to adhering to professional ethics and standards in the administration of polygraph testing. This includes the application of valid, objective, and scientifically sound methods and techniques, as well as respecting confidentiality and protecting individual rights.

The American Polygraph Association is a leading source of expertise and guidance in the administration of polygraph testing, helping to strengthen public confidence in this testing technique.

In 2019, the American Polygraph Association standardized the polygraph testing procedure at the national level[4].

In 1983, following documented cases of leaks in the presidential administration, Ronald Reagan issued the directive „Protection of National Security Information". This directive legislated the use of the polygraph in investigating cases of unauthorized disclosure of classified information. The directive covered all persons who had access to information related to state secrets – more than 2.5 million civil servants, around 1.5 million employees of private companies contracted by the state. This measure aimed to strengthen national security and prevent leaks of sensitive information in the administration.

The directive had a significant impact in promoting the use of the polygraph in the context of security investigations. By imposing polygraph tests, the aim was to identify and eliminate potential informants and protect classified information. This represented an important stage in the development of the practice of using the polygraph and contributed to the consolidation of national security in the United States of America.

In 1985, in the United States, federal authorities adopted a series of measures that expanded the use of polygraph testing in investigations into leaks of classified information. These measures established the conditions for the application of the polygraph test in sensitive cases, in the context of increasing concerns for the protection of secret information during the Cold War.

Also that year, the Department of Defense received expanded powers regarding the polygraph evaluation of personnel who had access to classified data, targeting a number of more than four million government employees and contractors. The measures were aimed at strengthening institutional security and preventing unauthorized leaks of information.

In order to ensure specialized training for the correct application of the test, an institute dedicated to the training of polygraph examiners within federal government

[3] American Association of Police Polygraphists. About AAPA – Our Mission [cited 09/01/2025]. Available: https://www.polygraph.org/.

[4] American Polygraph Association. Standards of Practice, 2019 [cited 01.09.2023]. Available: https://polygraph.org/docs/adopted_8-23-19_APA_STANDARDS_OF_PRACTICE.pdf.

structures was created in 1986. This institution, known today as the National Center for Credibility Assessment (NCCA), became the main training center for personnel involved in the application of the polygraph technique in American federal agencies.

This stage of institutional expansion and professionalization of the application of the polygraph strengthened the position of this technique in American security and investigative structures. At the same time, it provided the basis for the development of a unified methodological framework and for the standardization of the training of specialists involved in polygraph examinations, especially in the context of protecting classified information.

In the following years, however, amid debates on employee rights and the limits of intrusion into private life, tendencies to regulate and restrict the use of the polygraph outside the government context emerged. Thus, in 1988, the United States Congress adopted the *Employee Polygraph Protection Act (EPPA)*[5] – a normative act that imposed significant restrictions on the application of the polygraph test in the private sector. The law established clear rules regarding the grounds, conditions and prohibitions related to the use of the test in employment processes or in other forms of professional evaluation, in order to ensure respect for the fundamental rights of employees and their privacy.

In the same context, by 1990, a list of federal agencies that were authorized to use the polygraph in their work was drawn up. These agencies include the Army, Air Force, Navy, Marine Corps, FBI, CIA, NSA, United States Postal Service, Secret Service, Drug Enforcement Administration, Bureau of Alcohol, Tobacco and Firearms, United States Marshals Service, United States Customs and Border Protection, and Defense Investigation Service. These agencies, due to the specific nature of their activities and the need to ensure national security, were authorized to use the polygraph in their selection, evaluation, and investigation processes.

For a long time, polygraph testing was used primarily as an investigative tool in police activities. However, in the judicial practice of many American states, the results of polygraph tests were not considered sufficient to be used as evidence. Court decisions required solid scientific substantiation and clear demonstrations of the reliability and infallibility of the polygraph.

An example of this is a decision by the Pennsylvania Supreme Court, which states that the acceptance of psychophysiological testing results in American courts requires a thorough and conclusive study that attests to the scientific reliability and infallibility of the polygraph[6]. This emphasizes the importance of a solid foundation based on rigorous scientific research to give validity and credibility to the results obtained through the use of the polygraph.

[5] U.S. CONGRESS. Employee Polygraph Protection Act of 1988, 29 U.S. Code §§ 2001–2009.

[6] BURACK, B. Critical Analysis of the Theory, Method, and Limitations of the Lie Detector, A. In: Journal of Criminal Law and Criminology, 1955, vol. 46(414) [cited 2025-08-06]. Available: https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=4397&context=jclc.

We believe that this judicial approach reflects the prudence of the courts at that time regarding the acceptance of polygraph results as decisive evidence in judicial trials. The evaluation and interpretation of polygraph results are debated topics and are subject to rigorous criteria of validity and correctness in the scientific field. Thus, the application of the polygraph in justice continues to be the subject of detailed debates and analyses, and the granting of „evidentiary weight" to the polygraph examiner's opinion remains a function of the progress of research and the development of specific methodologies and standards.

The Supreme Court of New Mexico ruled on testimony obtained as a result of polygraph testing, considering it inadmissible as evidence, even if the participants in the trial expressed their written consent to be subjected to this test.

This decision once again highlights a cautious approach by the courts regarding the probative value of polygraph results. The New Mexico Supreme Court has ruled that even when individuals involved in a trial agree to undergo polygraph testing, these results cannot be considered a solid basis for establishing a person's guilt or innocence in a legal proceeding.

As U.S. judicial practice has evolved, polygraph testing has gained the status of scientific evidence, gaining recognition in the courts of the country. This recognition has been possible due to the qualitative improvement of the tools used to detect simulated behavior and the development of judicial practice in this field. However, the admissibility of polygraph testing results in court is conditional on the consent of the parties involved in the trial.

The Arizona Supreme Court has clarified this issue, stating that polygraph test results are considered scientific evidence and can be admissible as evidence in court under certain conditions[7]. These conditions include:

- the existence of written consent from the prosecution and the defense;
- the prerogative of the judge to decide the admissibility of the results of the polygraph test;
- the right of the parties to ask questions of the polygraph expert regarding the method and procedure used, as well as the qualifications of the polygraph examiner.

Thus, the admissibility of polygraph evidence in court in the US is subject to strict rules and procedures, thus ensuring the transparency and validity of the results. Through these regulations, courts attempt to ensure a fair and equitable evaluation of polygraph evidence and to avoid potential abuse or misinterpretation of it.

In this regard, the AAP has introduced mandatory standards and procedures for all licensed polygraph examiners.

Purpose of Establishing Standards. Polygraph testing, conducted by a competent and well-trained polygraph examiner using valid (scientifically sound) testing and analysis methods, is the most accurate method known to science for determining

[7] State v. Valdez, 91 Ariz. 274, 371 P.2d 894 (1962).

whether a person is telling the truth or lying. In order to obtain the most accurate conclusions from the polygraph, the American Polygraph Association establishes these Standards of Practice for its members. In addition, all polygraph testing must be conducted in accordance with federal, state, and local laws, rules, and regulations.

We believe that legal provisions that limit the admissibility of polygraph test results in court may raise questions regarding the respect for the defendant's fundamental rights, as guaranteed by the Sixth Amendment to the United States Constitution[8]. This amendment provides for the right to a fair trial and the defendant's right to confront the witnesses against him.

The exclusion of polygraph test results in court may be perceived as a restriction of these rights, as it may deprive the defendant of the opportunity to challenge the evidence presented against him. Thus, the non-admission of polygraph test results in court may be considered incompatible with the principle of justice and with the constitutional guarantees granted to the accused in a judicial process.

In Canada, the polygraph technique is widely used in the framework of forensic investigation activities, in the selection processes of personnel for institutions with special responsibilities, as well as in the operational surveillance carried out by government authorities. Due to its ability to provide relevant clues regarding the authenticity of statements and simulated behavior, the polygraph is considered a valuable tool in the stage preceding the formulation of judicial conclusions.

However, the Canadian legal system adopts a cautious position regarding the use of polygraph test results in the judicial process itself, as they are not directly admitted as evidence in court. This option does not express a challenge to the value of the technique itself, but reflects the jurisprudential orientation towards guaranteeing procedural fairness. However, in practice, the data obtained through testing are frequently used to guide research, verify hypotheses and consolidate the investigative picture, being considered a significant support in forensic work.

Strongly influenced by Great Britain in terms of legal norms, including procedural ones, Canada initially treated the polygraph with great reservations. In the mid-1990s, approximately 120 polygraph examiners were working in Canada. According to experts from the American Polygraph Association (AAP), Canada ranks second, after the United States, in terms of the use of the polygraph worldwide, using it mainly in forensic investigations and, to a lesser extent, in personnel selection in the public and private sectors.

Canadian police actively use the polygraph, especially in cases where it is necessary to narrow down the number of suspects, identify persons involved or not involved in committing crimes, collect additional information and establish the circumstances under which the crimes occurred. However, the results of polygraph tests cannot be used as evidence in court, and their use is limited mainly to investigative purposes.

[8] SIXTH AMENDMENT to the United States Constitution. Adopted on December 15, 1791

Japan is among the first countries outside the United States and Canada to officially adopt scientific lie detection in forensic investigations. This approach is based on the use of the polygraph and other similar technologies to assess the veracity of statements and determine whether an individual is involved in a crime.

The concept of polygraph testing was introduced to Japan after World War II, initially transferred through the American armed forces stationed in the region. The first Japanese specialist trained in the field was Toshio Hayashi, who completed a training course at the Far East Forensic Laboratory, managed by the US Army, in 1951[9]. Starting in 1956, the use of polygraph testing was officially adopted by Japanese police structures, and in the following decades, many prefectural police departments were equipped with modern testing equipment[10].

A landmark moment came in 1968, when the Supreme Court of Japan first recognized a polygraph test report as evidence in criminal proceedings. The decision set a valuable precedent in Japanese jurisprudence, strengthening the acceptance of polygraph results in the evidence management process. In May 1971, the Criminal Investigation Bureau of the National Police Agency adopted the first mandatory national standard on polygraph testing methodology, establishing precise rules for its application. In order for the results to be admissible in court, strict procedural requirements were established, including: the use of a standardized device, the application of an officially approved methodology, the performance of the test by a certified specialist, the observance of the optimal psychophysiological state of the tested person, and the obtaining of clear and conclusive reactions[11].

In **Asia**, polygraph testing is applied in varying degrees in several jurisdictions, including Lebanon, the United Arab Emirates, Hong Kong, Saudi Arabia, Jordan, Kuwait, Malaysia, Pakistan, Thailand, Taiwan, and the Philippines. In most of these countries, polygraph testing is used primarily by law enforcement agencies in the investigation of serious crimes and in the selection processes of personnel with sensitive responsibilities[12].

In some regions, the use of polygraph testing is integrated into the standard procedures of law enforcement agencies as an auxiliary tool to clarify ambiguous situations, detect simulated conduct, and support research. For example, in Thailand, the Department of Special Investigation routinely uses polygraph testing in cases of organized crime and corruption[13]. In the Philippines, the national police and anti-

[9] NAKAYAMA, O. History of Polygraph Testing in Japan. In: Polygraph, 1989, vol. 18, No. 3, p.193.

[10] HAYASHI, T.Y. Development of Polygraph Examination in Japanese Law Enforcement. In: Journal of Police Science, 1974, No. 12, p.45.

[11] National Police Agency (Japan). Standards and Guidelines for Polygraph Examinations. Internal Bulletin, Tokyo, 1971.

[12] ELSAYED, M. Use of Polygraph in the Middle East: An Overview. In: European Polygraph, 2021, vol. 15, No. 1, p.53.

[13] Department of Special Investigation (Thailand). Annual Report. Ministry of Justice, 2020. Available at: https://www.dsi.go.th.

corruption agencies frequently use polygraph testing in internal investigations and complex criminal cases[14].

However, at the regional level, there are debates about the probative value of the results obtained by this method. In many of these countries, the polygraph is not formally admitted as evidence in court, but is used exclusively for investigative purposes, to guide research and assess the behavior of subjects[15].

In **Israel**, the use of the polygraph was introduced in 1959. It is widely used by special services and the police. The results of polygraph tests, similar to the situation in Canada, can be accepted as evidence in civil trials.

Initially, several specialists were trained on the basis of American schools. Currently, Israel has its own school for training polygraph specialists.

The polygraph is widely used in Israel, both in the criminal and civil fields. For example, the police use it in the investigation and identification of criminals, as well as in the interrogation of suspects. In the civil field, for example, insurance companies use it to verify the veracity of claims.

Currently, 12 polygraph specialists work in the Israeli police, who are distributed in different regions and are part of the Forensic Department of the Israel State Police. The number of polygraph specialists working in the private sector currently exceeds 100 people.

In Israel, there is the Israeli Association of Polygraph Examiners[16] – a private and voluntary association of polygraph specialists, which promotes the profession, upholds ethics, and sets professional standards.

To become a member of the association, a person must meet rigorous professional requirements: to hold a diploma from an accredited polygraph training school, as well as to complete an internship.

Members of the association are required to conduct tests in accordance with professional standards and ethics.

The Israeli Polygraph Association includes examiners from the private sector, the General Security Service (Shin Bet), and the Israeli police.

Members of the Israeli army and the Israeli police do not represent their organizations, and their membership is only on a personal level.

The Israeli Polygraph Association is the only national association recognized as a member of the American Polygraph Association (AAP), the largest and most important polygraph association in the world, which also sets professional standards.

The association regularly organizes events to enhance the professional knowledge of examiners, such as professional conferences, which feature professional and

[14] Philippine National Police. Polygraph Examination Division – Use and Legal Framework. Internal document, 2022.

[15] SISON, A.T. Admissibility of Polygraph Evidence in Asian Legal Systems. In: Asian Journal of Criminology, 2013, vol. 8, No. 2, p.121.

[16] Israel Polygraph Examiners Association (I.P.E.A.). About Us [cited 12.12.2024]. Available: https://polygraph.org.il/en/.

experienced speakers from the United States. Seminars are considered mandatory and are held annually in accordance with the requirements of the American Polygraph Association.

In Israeli criminal proceedings, conclusions based on the interpretation of psychophysiological reactions obtained through polygraph testing cannot constitute a decisive basis for decision-making. However, the police force remains the largest user of polygraphs in the country. The security services also use polygraphs in investigations and in the recruitment process, being the second largest user of polygraphs.

The situation is different in Israeli civil proceedings. If a case is already in court and the parties agree during the hearing that the results of the polygraph test will influence the court's decision, the person promoting the polygraph test may gain an advantage in the trial. In this context, a new trial of the case is not possible.

Currently, polygraph testing is not recognised as admissible evidence in the UK courts. However, its use is not without merit in the British legal system. In England and Wales, paroled sex offenders have had the option of taking a polygraph test since 2007.

In the UK, the Parole Service in England and Wales was granted permission in 2014 to impose mandatory polygraph examinations as part of the conditions of release for sex offenders, under the Sex Offenders Act 1997. This initiative was implemented to strengthen the monitoring and supervision of paroled sex offenders and to reduce the risk of recidivism among this category of offenders.

The use of polygraph tests by the probation service has been successful, with the Ministry of Justice reporting in 2018 that 166 sex offenders had been returned to prison since the introduction of polygraph tests. Furthermore, polygraph tests are now considered under the Domestic Abuse Act for the release of domestic abuse offenders in England and Wales.

The National Council of Chiefs of Police[17] is currently exploring the benefits of polygraph testing in law enforcement and the possibility of expanding its use.

We believe that as more law enforcement agencies recognise the value of polygraph testing, it is likely to become more widely accepted in the UK legal system in the future.

In **Belgium**, polygraph testing is considered a special interrogation method and can be used in criminal investigations. However, under Belgian law, polygraph test results cannot be used as independent evidence in court. They can only be used in conjunction with other evidence to support the investigation and guide the direction of the prosecution. Thus, the polygraph does not have autonomous probative value in Belgian courts and cannot be used as the sole basis for proving a person's guilt or innocence in a legal trial.

[17] National Police Chiefs' Council (UK) [cited 15.11.2023]. Available: https://www.npcc.police.uk/.

After World War II, **Germany** was divided into four occupied zones. The military police of the US armed forces had ,,special agents" who worked as polygraph examiners. Some of these were German refugees and therefore spoke German. Over time, some German defense lawyers established contact with American military lawyers. During their conversations, the German defense lawyers discovered that the Military Criminal Investigation Department and military defense lawyers were requiring suspects who denied the charges against them to submit to a polygraph test. In this way, the suspects had the chance to prove their innocence, often resulting in the charges being dismissed.

In 1954, the Supreme Court ruled[18] that the basic principles of German constitutional law and criminal procedure prohibit the use of polygraph tests because they infringe on the defendant's freedom to make decisions and act according to his own will. This freedom of the defendant is based on the principles of constitutional law and criminal procedure, as well as on the concept of an individually responsible moral personality. Violations of personal freedom of will are prohibited, regardless of the defendant's consent to the violation. The Supreme Court considered that the defendant's right to decide whether and how to answer each question was incompatible with the use of the polygraph test. The argument behind this decision is that during a polygraph test, a guilty person can voluntarily answer the questions. At the same time, his involuntary reactions during the polygraph test would reveal the fact that he is guilty, and this information is obtained against his will. This introspection into the defendant's soul violates his freedom of decision and action. Therefore, polygraph tests should be prohibited in criminal trials, because every individual has the right to preserve an important and inviolable psychic sphere, which is necessary for the maintenance and development of personality.

The First Senate of the Federal Supreme Court of Germany (Bundesgerichtshof) had to decide on the admissibility of an investigative procedure completely unknown to the judges. They had no knowledge of the details of administering a psychophysiological test designed to reveal the involvement of a suspect in an investigated or tried crime. The judges felt the need to obtain information about this technique and how the entire examination was administered. Unfortunately, the judges of the First Senate did not know who in Germany could provide the necessary information. Therefore, they decided to request the US Forensic Science Laboratory for Europe, then located in Wiesbaden, to send a German-speaking special agent to testify before the Senate and inform the judges about the instrument and procedure for administering the examination.

However, the special agent was not familiar with German law and, indeed, could hardly have had any knowledge of it. He was only familiar with the American criminal justice system, which is an adversarial system with lay juries, where it is important for the parties to ,,impress the jury". With this in mind, the special agent tried to impress the judges of the First Senate.

[18] Bundesgerichtshof (BGH). Urteil vom 16. Februar 1954 – 1 StR 578/53.

As a result of this misunderstanding, the members of the senate concluded that they must prohibit the use of this technique in criminal proceedings in order to protect the freedom of the accused to make independent decisions and act according to their own free will.[19]

After that decision, the discussion about the admissibility of the results obtained by administering this technique ceased. The courts rejected all defense requests for the admission of the results of polygraph tests.

Things began to change in 1979, when law professor J. Schwabe published critical comments on the Supreme Court's 1954 decision. The Supreme Court's main argument was that the administration of the comparative question test violated human dignity and respect for human rights. This law professor raised the question of whether it would not be an even more serious violation of human rights to imprison an innocent person than to participate in psychophysiological testing requested by that person[20].

Of course, there is only one answer to this question. This article encouraged lawyers to object to the Supreme Court's decision not to accept the results of polygraph tests.

As a result, a series of scientific articles were published in legal journals in which J. Schwabe challenged the Supreme Court's decision, emphasizing the Supreme Court's misunderstanding of the rationale and manner of administering the test under consideration.

As a result, some judges and courts dared to admit the results of polygraph examinations into evidence. Naturally, these decisions were challenged by prosecutors. Thus, these cases were referred to the German Supreme Court of Justice for adjudication, which decided to issue a new policy decision in 1998.

The Supreme Court ordered a hearing and called several scientists to give expert testimony on the validity of psychophysiological examinations, in particular the control question test.

The hearing was scheduled for two days, during which the experts presented their opinions. The first expert was a professor of physiology, who, although he did not have detailed knowledge of the polygraph technique, appealed to reason, arguing that if the technique had an acceptable level of validity, it should be used. He compared it to acupuncture and explained that although it was not known in detail how it worked, if it had results, it should be used and benefited from.

The next expert was J. Schwabe, who was invited to express his opinion before the Supreme Court. He argued in favor of the admissibility of this technique, at least for those who maintain their innocence and desperately want to prove it. J. Schwabe argued that the use of the polygraph can contribute to obtaining evidence in support of innocence and can serve as an additional tool in the process of justice.

[19] Bundesgerichtshof (BGH). Urteil vom 17. Dezember 1998 – 1 StR 156/98. In: BGHSt, 1999, vol. 44, p.308.

[20] SCHWABE, J. Rechtsprobleme des „Lügendetektors". Neue Juristische Wochenschrift (NJW), 1979, P. 576-582. ISSN 0341-1915.

Max Steller, professor of forensic psychology at the Free University of Berlin, in his Habilitationsschrift, highlighted the importance of using the polygraph technique in forensic investigation. He reviewed the studies and results obtained in the field and argued that the polygraph can make significant contributions to the identification and solving of crimes.

These opinions presented at the hearing reflect various perspectives on the use of the polygraph and can serve as a basis for making a judicious decision regarding the admissibility of this technique in the justice system.

The last expert was K. Fiedler, a clinical psychologist who, in his introductory remarks, emphasized that he had never testified in court and that he was not particularly interested in forensic psychology. In his testimony, he emphasized that the theoretical basis of the test with control questions is extremely weak. Regarding the validity of this diagnostic tool, he argued that the results of these examinations are more often incorrect than correct.

He also testified that tests with control questions have very low validity, especially when applied to alleged sexual offenders. This testimony had a very strong impact on the court, because in legal proceedings related to the sexual abuse of minors, we often face situations where there is no direct or indirect evidence. This means that for innocent people, the chances of getting a charge dismissed are extremely low.

It was later discovered that K. Fiedler had used figures from Patrick and Iacono's field validity study[21]. This study showed the difference in accuracy and reliability between control question tests and other assessment modalities, indicating significant sampling bias in the case of polygraph tests. Fiedler pointed out that the study by Patrick and Iacono found that control question tests often lead to an increased number of false alarms, which can result in the unjustified incrimination of innocent people, especially in cases involving alleged sexual offenders.

Fiedler also highlighted that the study illustrates a lack of consistency in the results obtained through polygraph tests, suggesting a low validity of this method. This can have serious implications, as people who are actually innocent could be categorized as guilty, thus amplifying the trauma and injustice suffered by victims.

Fiedler went on to argue that it is imperative for the legal system to take these findings into account and review the way polygraph tests are used in judicial processes. He stressed that a more scientific and rigorous approach is needed to assess the credibility of testimonies, especially in cases involving allegations of sexual abuse.

Stressing that there are other methods and newer technologies that can provide a more accurate and reliable diagnosis, Fiedler advocated for a reassessment of the reliance on polygraph tests in court. He suggested that a step forward could be closer collaboration between forensic psychologists and researchers to ensure that methods

[21] PATRICK, C.J., IACONO, W.G. Validity of the control question polygraph test: The problem of sampling bias. In: Journal of Applied Psychology, 1991, No. 76(2). P. 229-238 [cited 06.12.2024]. Available: https://doi.org/10.1037/0021-9010.76.2.229.

used in court are based on sound scientific evidence and not on outdated and potentially incorrect techniques.

In concluding his testimony, Fiedler stressed that it is the responsibility of all those involved in the justice system to protect the individual rights and freedoms of citizens, including the right to a fair and impartial trial. He called for urgent reform in the way sexual abuse cases are handled and urged a serious reconsideration of the role and relevance of polygraph tests in contemporary judicial processes.

In 1998, the Federal Court of Justice in Germany changed its position on the use of polygraphs in criminal proceedings. Although it abandoned the 1954 constitutional ban in two well-founded rulings on December 17, 1998, the Federal Court of Justice nevertheless rejected the question control test as a completely unnecessary means of evidence in accordance with current research standards.

The Federal Court of Justice's reasoning is based on three expert reports by medical professor Jänig and psychology professors Fiedler and Steller, who rejected the question control test. A third expert report by Undeutsch was not followed by the Federal Court of Justice[22].

The Federal Court of Justice's arguments include the following:

- The theoretical premise of the question control test, namely that the guilty person should react more strongly to questions about the crime due to fear of punishment, is not proven.
- The formulation of the control questions is a problem that cannot be solved satisfactorily, since they are formulated intuitively, depending on the personality of the person being examined.
- The Federal Court of Justice also expresses doubts about the validity of the question control test. Although the Undeutsch report indicates a success rate of between 70 and 90 %, the Federal Court of Justice does not agree with this conclusion.
- The Federal Court of Justice left open the question of whether the test of knowledge of the circumstances of the facts, applied in the context of the investigation procedure, could constitute a valid means of evidence.

We believe that, in the context of this analysis, an essential question remains unresolved: *why did the German legislator choose to focus exclusively on assessing the reliability of tests that apply the method of control questions in the use of the polygraph*? This choice seems to neglect a wide range of alternative and relevant methods and techniques that can contribute to a deeper and more nuanced understanding of the efficiency and accuracy of the polygraph.

By looking at a single method, we run the risk of providing a narrow and perhaps misleading perspective on the overall validity of polygraph testing. It is essential to consider a broad spectrum of methods and approaches to ensure that the assessment

[22] DAHLE, K.P., VOLBERT, R. (Hrsg.). Entwicklungspsychologische Aspekte der. In: Praxis der Rechtspsychologie, 2005, vol. 9, p.113.

of polygraph reliability is as accurate and complete as possible. An exhaustive and comprehensive examination would provide a clearer and more detailed picture of the polygraph's actual ability to detect truth or lies, thus ensuring that decisions made based on polygraph test results are informed and reliable.

While the control question method may have some degree of effectiveness in certain circumstances, other methods that can provide valuable information and insights should not be ignored. Diversifying testing methods and their comparative evaluation would contribute significantly to improving the understanding and effectiveness of polygraph testing as a whole.

Complementing and supporting our observations, a review by leading scholars on the scientific validity of polygraph testing shows that it is conditioned by a number of dimensions and criteria that vary across specific research studies. It is argued that relying solely on a single method in assessing the reliability of polygraph tests is not only insufficient but potentially misleading.

Neglecting a diverse range of alternative methods and techniques can undermine a genuine and nuanced understanding of the effectiveness and accuracy of the polygraph. It is imperative to adopt a much broader perspective, encompassing the diversity of approaches and techniques, to ensure the most accurate and complete assessment of polygraph reliability.

Such a multidimensional perspective will significantly contribute to clarifying the reality of polygraph tests' ability to detect truth or lies, increasing confidence in decisions based on polygraph test results[23].

In general, we find that in Germany, the debates on the use of polygraph tests in criminal trials reflect a wide range of opinions and perspectives. The existence of both pro and con positions in the legal and psychological literature underlines the complexity and sensitivity of the subject.

Despite a decision by the German Federal Court of Justice in 1998, more recent studies and some experts continue to support the use of polygraph tests for the exoneration of defendants, insisting on the need for assessments carried out by experienced professionals in the field. Many lawyers and specialists, such as Meyer-Mews and Offe & Offe, defend the controlled and carefully monitored use of polygraph tests, emphasizing their potential to simplify and accelerate the process of finding the truth in judicial investigations.

At the same time, there are voices, including Rogall, who strongly oppose the use of polygraph examinations in criminal proceedings, highlighting the limitations and risks associated with this testing method. These opposing views underscore the need for careful analysis and rigorous evaluation of the role and effectiveness of polygraph testing within the German legal system.

[23] Scientific Validity of Polygraph Testing. A Research Review and Evaluation. A Technical Memorandum. Washington, D.C.: U.S. Congress Office of Technology Assessment, OTA-TM-H-15, November 1983, p.108.

While advocates of polygraph examinations highlight the potential advantages, including time and cost savings, as well as the avoidance of stressful interrogations for victims, critics emphasize the imperative need for caution and skepticism in adopting this method.

The history of the application of the polygraph examination technique in **Bulgaria** reflects an interesting evolution of the use of this technique in the country. Compared to the United States, where polygraph technology was widely used, in Bulgaria this method was introduced later and experienced a gradual development.

In 1968, Bulgaria acquired its first polygraph examination instrument, a six-channel Stoelting, originally intended for the development of a training system for learning how to evade the polygraph method. In 1972, Bulgaria purchased another Stoelting Ultrascribe instrument. All polygraph experiments were initially conducted within the psychology laboratory of the Ministry of the Interior.

Until 1989, the development of polygraph examinations in Bulgaria focused on the development of countermeasure techniques to cheat polygraph tests. Training in the use of polygraph examinations was based on manuals and local experiments, and a small number of people had the necessary skills to work with the polygraph. This had a significant impact in the early 1990s, as these experts retired without replacements to continue their work. In practice, the polygraph was used during this period in a small number of criminal cases and for the selection of officers for a new service designed to combat organized crime. In the spring of 2007, Paul Redden, then the chief polygraph examiner at the San Diego Police Department and a representative of Lafayette Instruments, arrived at the institute, thus paving the way for the formal training of two experts from the Institute of Psychology in an AAP-accredited school in the USA. This event marked the beginning of the search for a suitable place for polygraph examinations in Bulgaria.

After 1997, the use of polygraphs increased significantly in Bulgaria. The results of polygraph tests have become decisive in solving many criminal cases, such as homicides, serial assaults, robberies and thefts. Since 1999, the results of polygraph tests have been presented in courts under the name of *psychological expertise for the investigation of truthfulness*. However, Bulgaria does not have a special law on the use of polygraph tests[24].

In 1998, the Bulgarian Association of Polygraph Examiners was established, which became a professional body for those working in the field of polygraph examinations. In 2004, the Bulgarian Association of Polygraph Examiners organized the first international conferences, which contributed to the promotion of the use of the polygraph and the debate on its regulation in the judicial system.

[24] VLADIMIROVA, V.V., TODOROV, T.B. The essence of the polygraph method and its use in Bulgaria. Western University "Neofit Rilski", Blagoevgrad, BULGARIA, Faculty of Philosophy, Department of Psychology. 2020.

In the last ten years, private polygraph examiners, most of whom are specialists who previously worked at the Institute of Psychology, have started to collaborate with private sector companies in solving cases of unfair behavior, theft, robbery, etc. Prevention is also a main focus, so polygraph testing has become part of the pre-employment procedures of numerous companies in the country.

In the post-war period, while the use of the polygraph in criminal investigations was constantly increasing abroad, the **Soviet Union** still had a deeply negative attitude towards the ,,polygraph problem". As a result of this attitude, the technology of obtaining information from people using the polygraph was not studied by psychologists or physiologists in the country for three or four decades. The first to draw attention to this topic, after A.R. Luria, was Professor P.V. Simonov (who later became an academician of the Russian Academy of Sciences and director of the Institute of Higher Nervous Activity and Neurophysiology of the Russian Academy of Sciences).

In the early 1960s, when the development of the information theory of emotions began, P.V. Simonov conducted a significant series of experimental research in the psychophysiology of emotions and, in particular, studied the method of detecting emotional reactions to signals significant for the subject (the so-called lie detection).

As a result of these studies, the scientist came to the conclusion that the effectiveness of modern methods of detecting emotions leaves no room for doubt. Such methods can become an auxiliary tool in the investigation of crimes, speeding up the process and, thus, contributing to solving the main task of socialist justice: the elimination of impunity for crimes.

Independently of P.V. Simonov, in the early 1970s, a group of researchers from the Institute of Biophysics of the USSR Academy of Sciences, under the leadership of Professor L.G. Voronin, who were engaged in research on memory mechanisms, used "the method on which the so-called lie detector is based" as an experimental means. The researchers stated that they resorted to this method ,,because any methodology that allows detecting changes in reactions that occur during the storage of emotional phenomena" in human memory seemed promising. Although the researchers did not address the issue of using the ,,lie detector" in practice, citing the ,,lack of physiological substantiation" and the non-acceptance of this method in the legal field, the fact that they conducted this research was already proof of the validity and scientific effectiveness of the psychophysiological method of detecting the necessary information in human memory. The results of subsequent experiments confirmed that the polygraph technique is in fact an effective tool for detecting information hidden by an individual, contrary to the opinion previously held in the Soviet legal and psychological field.

The experimental research of the group led by P.V. Simonov were successfully completed, and in 1970 A.A. Zaniceva defended the first doctoral thesis in the USSR

on the topic of applying the polygraph. The method was officially recognized as scientifically substantiated, and the use of the polygraph in the KGB was approved. A.A. Zaniceva quickly demonstrated the effectiveness of using this method in operational practice, but the only specialist in this field could not satisfy the needs of the security organs of a huge country: the need to create a special department dedicated to the application of the polygraph became obvious. However, certain obstacles arose.

One of the initial obstacles – the lack of adequate equipment – was soon overcome by supplementing the polygraph equipment with high-performance devices produced by the American companies Associated Research Inc. and Stoelting. One of these devices was transferred to the Central Scientific Research Institute of Special Techniques of the KGB, where, under the leadership of Captain Iu.K. Azarov, Doctor of Technical Sciences, research was initiated on the development of technical means for detecting hidden information. L.G. Alekseev, who would later become one of the leading specialists in the field of applied psychophysiology in the Russian Federation, was also involved in these activities. The results of the research conducted during that period were summarized in the volume *Проблемы прикладной психофизиологии*, a work also appreciated in the international specialized literature, including through a favorable review published in the journal *European Polygraph*[25].

The polygraph also began to be applied by the medical department in psychological research for personnel selection, where B.I. Guseinov, now well-known in Russia, took part together with V.K. Noskov.

Unaware of the department's efforts to develop this topic and trying to facilitate the promotion of the polygraph in practice, P.V. Simonov, a scientist deeply involved in the „polygraph problem", sent the chairman of the KGB of the CMS of the USSR, Iu.V. Andropov, an explanatory note "On the current state of lie detection in the USA". Making a brief review of the use of the polygraph, the scientist noted: „the method of recording involuntary emotional reactions continues to be developed and applied in the USA. This circumstance provides a basis for considering it expedient to organize in the KGB system of the USSR a special laboratory for studying methods applied in instrumental detection taking into account the latest achievements in psychophysiology, electronics and computer technology".

But the main obstacle to the promotion of the polygraph testing method was the negativism that had developed over the years in the USSR towards the „lie detector". The sudden increase in the use of polygraph examinations in the early 1950s in the USA and other countries did not attract the attention of jurisprudence specialists or psychologists in the country. On the contrary, specialists from the USSR Prosecutor's Office stated that „Soviet scientists have always opposed such criteria for assessing

[25] SHAPOVALOV, V. Review of L.G. Alekseev & F.V. Potemkin's The Problems of Applied Psychophysiology. In: European Polygraph, 2017, vol. 11, No. 4, p.189-191, ISSN 1898- 5238.

the veracity of the testimonies of witnesses and defendants, rightly considering that it is never possible to determine with certainty which mental processes generate a certain physiological change in the body". The publications that appeared in those years on this topic only deepened the misunderstanding of the „polygraph problem", mixing together socio-legal, natural-scientific, methodological and technical aspects. A wall of ideological beliefs stood in the way of implementing the polygraph in the activities of the country's special services and law enforcement agencies: the use of the „lie detector" was considered „false science or pseudoscience". In order to develop this direction, portable encephalographs were purchased from the company „Biomedica" (Italy) for conducting tests using the polygraph, which were distinguished by high reliability and served for about 20 years.

The creation of Laboratory No. 30 led to an increase in the number and expansion of the area of application of polygraph examinations. Therefore, polygraph examiners from the former Soviet republics can start counting the time of using the polygraph in their countries from the practice of the KGB bodies[26]. The laboratory employees first conducted tests with the use of the polygraph on the territory of Georgia and Latvia in 1976, on the territory of Armenia and Ukraine in 1978, and in the early 1980s – on the territory of Kazakhstan[27], Kyrgyzstan and other republics. In 1977, the laboratory employees first conducted polygraph examinations outside the USSR, and later such work became regular: the polygraph was used on the territories of countries in Europe, Asia and Africa.

The functions of polygraph examiners were performed by Iu.K. Azarov, A.A. Zaniceva, V.K. Noskov, Iu.I. Holodny, T.G. Karikhh, B.I. Guseinov, V.V. Korovin, B.E. Fyodorov. Although the volume and area of polygraph use were constantly increasing from year to year, the needs of state security bodies for polygraph testing (due to personnel turnover) were provided by a group of only five to six specialists[28].

The work of Laboratory No. 30 of the KGB was carried out in strict secrecy: only those who came into contact with it for official reasons knew about its existence and functions. However, with the beginning of the use of the polygraph in operational practice, the state security organs could not completely hide this fact: in 1979, the American Congress, during hearings dedicated to the selection and verification of personnel in the US intelligence organs, discussed, among other things, the use of the polygraph by the KGB organs. Thus, what was carefully hidden from the public in the USSR was well known abroad.

Recognizing the need to introduce the polygraph into the practice of combating crime, independently of the KGB and also in conditions of confidentiality, emplo-

[26] ZLOBIN, G., JANI, S. The Problem of Polygraph. In: Problems in Improving Soviet Legislation, Proceedings of the Institute of Soviet Legislation, 1976, No. 6, p.122.

[27] ALESKOVSKIY, S. Earliest History of Kazakhstan Polygraph. In: European Polygraph, 2022, vol. 16, No. 1, p.5-17, ISSN 1898-5238.

[28] WIDACKI, J. Review of Detektor lzhy na strazhe istiny (Lie Detector Guarding the Truth) by Vladimir Kniazev. In: European Polygraph, 2010, No. 4, p.231.

yees of the Moscow MIA (K.S. Skoromnikov group) and Kiev (A.F. Voznoy group) conducted experimental-applied research on the possibility of using the polygraph. These researches proved to be successful and gave promising results, which were reported at a closed departmental conference in the city of Kuibyshev (now the city of Samara) at the end of 1978. However, the consequences were opposite to those expected and the initiative was punished: the experimenters were subjected to harsh criticism, the research was stopped, the groups were disbanded, and this topic in the MIA was abandoned for 12 years.

In the 1980s, the national methodology for polygraph examination was created[29], which was adapted to the specifics of the activities of state security bodies and allowed to confidently solve the tasks set by operational practice. The following were developed, tested in laboratory and real conditions and admitted for use: mixed-type tests, version significance assessments, situationally significant stimuli. The training program for polygraph examiners was adjusted, who then successfully worked in difficult operational conditions. Finally, in 1986, in fact, the same year as the USA, a technical system for recording physiological reactions was created - the prototype of a computerized polygraph.

The attitude towards the polygraph began to change only in the last year of the existence of the USSR. For the first time, the "lie detector" was openly used in the USSR in early 1991 during the investigation into the murder case of priest A. Men: a certain „Bobkov gave confessions of guilt in committing the murder". Polygraph testing of G.A. Bobkov was carried out by Major V.V. Korovin, an employee of Laboratory No. 30 (today a well-known polygraphologist in the country).

During a trip abroad, the leadership of the USSR Ministry of Internal Affairs (MAI) got acquainted with the application possibilities of polygraph examination in police practice, and the ministry decided to prepare proposals for the introduction of the polygraph into the work of internal affairs bodies.

Among other measures, the MAI turned to the KGB with a request to familiarize a group of ministry employees with the method of testing with the application of the polygraph.

An important role in the legalization and spread of polygraph testing in **Russia** was played by the Law on Special Investigative Activity, which came into force in 1992 and obliged all subjects involved in special investigative activity to introduce polygraph examinations into their actions.

In the implementation of this law, the Ministry of Security of the Russian Federation – one of the successors of the USSR KGB – prepared the first normative act in the country regulating the use of the polygraph.

The appearance of this document, which went against the decades-old negativism towards the „lie detector", caused great controversy in the Ministry of Justice

[29] KHOLODNY, Yu. Interrogations Using a Polygraph in Russia: 15 Years of Legal Application. In: European Polygraph, 2008, vol. 2, No. 4, p.73-83, ISSN 1898-5238.

of Russia, where the act was sent for registration. The Prosecutor General's Office of Russia supported the need to introduce polygraph testing into the work of law enforcement agencies and to implement such a document.

In February 1993, the Ministry of Security of Russia held a joint meeting with representatives of the Ministry of Internal Affairs, the Ministry of Justice, the Foreign Intelligence Service and the Supreme Court of Justice of Russia, during which the need to „legalize" the polygraph and its use in police activities was considered. All participants invited to the meeting supported the initiative of the Ministry of Security of Russia and the Ministry of Justice, and therefore on March 1, 1993, the „Instruction on the procedure for conducting special psychophysiological examinations using a polygraph by federal state security bodies" was registered.

This was the last major contribution of Laboratory No. 30 to solving the „polygraph problem" in Russia - the use of the polygraph in Russia was legalized.

In 1994, the Ministry of Internal Affairs put into effect the Instructions for testing with the application of a polygraph, in 1996 – the Federal Tax Police Service, and in 1999 – the Ministry of Defense of Russia. A new era began in the work of applying a polygraph by law enforcement agencies in Russia.

The methodology of polygraph examination no longer had to be hidden under the secret seal. Therefore, in January 1994, Laboratory No. 30, having fulfilled the mission assigned to it and formally ending its existence, moved to a new level: it was transferred to the Institute of Forensic Science of the Ministry of Security of Russia and there received the status of a department.

On July 12, 2023, the International Association of Experts in the Field of Psychology and Law, the Faculty of Law of Lomonosov Moscow State University and the Department of Forensic Science organized a round table with international participation on the topic Research using the polygraph: yesterday, today, tomorrow. During this scientific event, Veaceslav Tokarev, a representative of the Main Criminalistics Directorate (Centre for Criminalistics) of the Investigative Committee of the Russian Federation, recalled that investigations using the polygraph began to be practiced by the staff of the territorial forensic subdivisions of the Investigative Committee of the Prosecutor's Office of the Russian Federation in 2009. 10-12 thousand examinations are carried out annually, 2/3 of which are on criminal cases. The number of decisions referring to the conclusions of polygraphologists as evidence has decreased over the past 10 years from more than 200 to 15-20 per year, due to the negative position of the Supreme Court of Justice of the Russian Federation. However, the figures themselves are not an indicator of distrust in the method. In particular, in the territories of the Russian Federation, the work of polygraphologists is very effective.

Yaroslava Komissarova, a prominent figure in the field, summarized the results of the discussions and formulated the main conclusions[30]. The scientist emphasized

[30] KOMISSAROVA, Ya. Polygraph Examinations in Russia: Trends and Prospects. In: European Polygraph, 2020, vol. 14, No. 1, p.25-38, ISSN 1898-5238.

that currently, due to the rapid development of science and technology, the problems of verifying information provided by people have intensified.

Psychophysiological research using a polygraph is an independent technology, which allows, subject to certain standards, to obtain information about a person's knowledge of a particular event, even if he claims to know nothing.

The possibility of identifying signs of concealment of information about an event, for example, by analyzing behavior, is not yet well-founded in Russia. The pseudo-complex approach, when the boundaries of research with a polygraph are blurred due to an excessive psychological approach, leads to a decrease in the quality and effectiveness of the work of the polygraph expert.

New technologies are currently being developed for verifying the information provided by people. However, they should not be confused with psychophysiological research using the polygraph, which has been carried out in different countries of the world for over 100 years. New devices and methods of their use have yet to be tested in practice.

In **Romania**, as in the rest of the world, especially in the former communist states of southeastern Europe, the use of the polygraph was effective and relatively late. It was not until 1971 that the first examination using the polygraph took place. This testing was carried out mostly in a teaching environment, at the Department of Psychology of the „Babeș-Bolyai" University in Cluj-Napoca. The polygraph used, the „Stoelting" model, was purchased from the USA by Professor Alexandru Roșca and used in his experimental studies in the field of psychophysiology.

In the Romanian judicial field, the use of the polygraph only began in 1975, being applied especially in murder cases. Tudorel Butoi, author and graduate of the Faculty of Psychology in Bucharest, is among the first experts who used this device to detect the simulated behavior of suspects in the circle of suspects formed by the judicial bodies. Of course, the implementation of the polygraph at this level was achieved gradually. Initially, there were experimental examinations, carried out on subjects in whose case the concealment of the truth was controlled. In the next stage, the experimental results were corroborated with the actual testing of subjects suspected of committing criminal acts. Parallel to the use of the polygraph, at the Institute of Criminalistics in Bucharest, the psychological stress detector in the voice was also introduced, with expert Jean Nichifor at the helm of the development and application of this technology. This tool, which analyzes voice fluctuations to detect signs of psychological stress, has offered a new perspective in assessing the veracity of statements, thus complementing traditional investigative methods.

With all these advances, it is essential to remember that, although useful, these tools do not offer an absolute guarantee of accuracy. The polygraph and the voice stress detector must be used as part of a complex set of investigative methods, which, combined, can provide a clearer and more objective picture of the case under analy-

sis. By collaborating and combining these tools, legal professionals have significant resources at their disposal to elucidate the truth in the difficult cases they face.

This continuous evolution in the field of investigative technologies highlights the constant commitment of experts to perfecting truth detection methods, thus contributing to the efficiency and fairness of the judicial process in Romania.

Later, specialized polygraph laboratories were established in Romania, operating within the structure of the police inspectorates of some counties and the municipality of Bucharest, under the coordination of the Institute of Forensics of the General Inspectorate of Police within the Ministry of the Interior.

In 2012, there were 10 regional laboratories for detecting simulated behavior operating in Romania, in which 12 specialists worked. By 2023, the number of these laboratories had increased significantly. Currently, in Romania, there are 22 laboratories located within the structures of the county inspectorates and one laboratory at the Bucharest Police Department, with a total of four examiners, two of whom are specialists and two experts.

These laboratories are the places where specialists and official experts recognized by the Ministry of Justice carry out their activity. This official recognition emphasizes the quality and seriousness of the work carried out in the polygraph examination laboratories, guaranteeing the accuracy and reliability of the results obtained.

To become an expert in this field, it is necessary to meet well-defined conditions: a minimum of four years of experience in polygraph examination, proof of a specific number of examinations and passing an exam organized by the Institute of Forensic Science, all of which are carried out based on a provision and established procedures.

The increase in the number of laboratories and specialists active in this field highlights the importance that Romania attaches to modern and innovative investigative tools. This fact underlines the country's continuous effort to align with international standards in the field of judicial and criminal investigations, thus providing significant support to judicial bodies and facilitating the process of seeking the truth in complex cases.

Regarding the use of polygraph tests in Romania, an eloquent example can be found in the statistics from the period 1990-1998 of the Cluj County Police Inspectorate. The polygraph was requested here for 1,266 criminal cases, on which occasion 3,586 people were tested. The results obtained indicate that 73% of the people tested were determined to be honest, while the remaining 27% were considered dishonest. Of this last category, 27% admitted their actions during the examination, and the majority, 73%, did so later, during the investigation. Only 2% of the test results were inconclusive, meaning that the examiners could not formulate a definitive conclusion regarding the honesty or dishonesty of the tested subjects. The accuracy of polygraph testing at the Cluj County Police Inspectorate was thus 98%, underlining the usefulness and efficiency of this tool in judicial investigations.

Between 2010 and 2022, the use of polygraph tests in Romania has experienced a significant increase. The number of criminal cases in which these tests were used has increased to approximately 2,000 cases per year, reaching a total of 26,000 cases in the 13 years. This trend shows an increased recognition of the usefulness of polygraph tests in judicial investigations and an increase in the authorities' confidence in this technique.

Regarding the total number of people tested, this reached approximately 5,720 annually, totaling 74,360 people in the 13 years. These data reflect the impact of the expansion of the use of polygraph tests on the community and the increasing number of people who are subjected to this procedure in the context of criminal investigations.

In Romania, the polygraph testing procedure is governed and standardized by several essential normative documents: Specific procedure for polygraph examination code PSL – 01-07, Organization of activities in polygraph laboratories of the Romanian Police and Manual of good practices for the analysis and interpretation of polygraph diagrams in the Romanian Police. These documents establish the legal and methodological frameworks for conducting polygraph examinations, thus ensuring compliance with international and national standards in the field[31].

Continuing on the same line, the evaluation of simulated behavior through the polygraph technique is regulated as a forensic psychology activity by art. 36 of the Order of the Ministry of Internal Affairs no. 23/2015 on the activity of psychology in the Ministry of Internal Affairs. This ordinance reinforces the commitment of the Romanian authorities to ensure an ethical and professional application of polygraph tests, protecting the rights of the subjects and facilitating the process of seeking the truth in judicial cases.

According to the *Manual of Good Practices for the Analysis and Interpretation of Polygraph Charts in the Romanian Police*[32], a set of tests based on the control question paradigm is practiced in Romania, thus demonstrating the country's alignment with consolidated and effective international practices in the field of polygraph examination. These tests include:

- the John Reid type test, renowned for its structured methodology;
- the Modified General Question Test (MGQT), which offers a diversified approach to the examination;
- the Air Force test, originally developed by the US Air Force;
- the Bi-zone test, which focuses on the analysis of two distinct response zones;

[31] LUNGU, A. Aspects of the application of the polygraph in the investigation of crimes. Particularities of the pre-test stage. In: Forensics - The Main Pillar of Judicial Probation in Criminal and Civil Trials, International Conference on Forensic Sciences, 11th Edition, Romanian Association of Forensic Scientists, October 20-21, 2023.

[32] National Institute of Forensic Science. Manual of good practices for the analysis and interpretation of polygraph diagrams in the Romanian Police. MAI, IGPR. Document no. 774.252 of 03.08.2015.

- the Utah Zone test, an innovative and effective method in assessing the behavior of the examined subjects.

These methodologies are actively adopted and used to ensure precision and accuracy in the results obtained through the polygraph examination, thus contributing to the consolidation of the judicial investigation process in Romania.

According to Romanian law, the legal value of polygraph examinations is well defined. According to Ordinance no. 75/2000 on the organization of forensic expertise, polygraph examination is classified as expertise for the detection of simulated behavior[33]. This specific name gives polygraph examination a distinct status within the Romanian judicial system.

Title IV, art. 97 of the *Romanian Criminal Procedure Code* clearly stipulates that expertise is an official means of evidence in criminal proceedings. This includes the results obtained from polygraph examinations. It is stipulated that evidence is obtained in criminal proceedings by various means, one of which is expert reports. This confirms the essential role of polygraph examination in the investigative and judicial process, significantly contributing to establishing the truth in criminal cases.

However, it is important to mention that, in practice, the probative value of polygraph tests may be subject to debate in court. Polygraph tests are based on the physiological responses of subjects, which can be influenced by a variety of factors. This may generate certain limitations in terms of the reliability and accuracy of these tests as means of evidence and explains why some courts may treat polygraph test results with a certain degree of caution.

Thus, while polygraph tests are recognized as a form of expertise and, consequently, as evidence under Romanian law, it remains the responsibility of the parties involved and the court to determine their weight and relevance in the context of each case. This balanced approach ensures a fair and impartial judicial process, guaranteeing the rights of all parties involved.

Conclusions. The comparative analysis of opinions in the specialized literature reveals a significant doctrinal segmentation regarding the use of the polygraph technique, reflecting both reservations related to its scientific validity and the implications for the rights of the tested subjects, as well as explicit claims regarding the usefulness of this tool in the investigation activity. However, the critical examination of the arguments and positions expressed in the reference works leads to the conclusion that the polygraph technique, viewed from the perspective of forensic investigation, has a high degree of operational feasibility, being supported by an objective factual substrate and an empirically validated scientific foundation.

Based on the analysis of international practices, it can be concluded that the polygraph technique is consistently recognized as a scientific method for investigating simulated behavior, being widely used in forensic analysis activities. Even though its

[33] Romanian Government Ordinance no. 75/2000 on the organization of forensic expertise. In: Official Gazette of Romania, Part I, no. 407 of 29 August 2000.

legal status varies depending on the legal system, its scientific validation and integration into institutional protocols in countries such as the USA, Canada, Japan or Israel confirm the feasibility and relevance of this method in guiding forensic versions and clarifying the circumstances of the investigated facts.

A comparative examination of international practices reveals that the application of the polygraph is admitted, under regulated conditions, as a means of evidence in the judicial systems of Japan, Romania, Bulgaria, Israel, as well as in numerous US states.

Bibliographic references:

1. Romanian Government Ordinance no. 75/2000 on the organization of forensic expertise. In: Official Gazette of Romania, Part I, no. 407 of August 29, 2000;
2. National Institute of Forensics. Manual of good practices for the analysis and interpretation of polygraph diagrams in the Romanian Police. MAI, IGPR. Document no. 774.252 of 03.08.2015;
3. LUNGU, A. Aspects of the application of the polygraph to the investigation of crimes. Particularities of the pre-test stage. In: Forensics – The Main Pillar of Judicial Probation in Criminal and Civil Trials, International Conference on Forensic Sciences, XI Edition, Romanian Forensic Association, October 20-21, 2023;
4. VLADIMIROVA, V.V., TODOROV, T.B. The essence of the polygraph method and its use in Bulgaria. Western University „Neofit Rilski", Blagoevgrad, BULGARIA, Faculty of Philosophy, Department of Psychology. 2020;
5. TURNER. Detection scientifique du mensonge dans l'Armée Américaine. In: Revue Moderne de la Police, 1963, no. 61, p.16;
6. REID, J.E., INBAU, F.E. Criminal Interrogation and Confessions. 3rd ed. Baltimore: Williams & Wilkins, 1987, p.3-19;
7. American Association of Police Polygraphists. About AAPA – Our Mission [cited 01.09.2025]. Available: https://www.polygraph.org/;
8. American Polygraph Association. Standards of Practice, 2019 [cited 01.09.2023]. Available: https://polygraph.org/docs/adopted_8-23-19_APA_STANDARDS_OF_PRACTICE.pdf;
9. U.S. CONGRESS. Employee Polygraph Protection Act of 1988, 29 U.S. Code §§ 2001–2009;
10. BURACK, B. Critical Analysis of the Theory, Method, and Limitations of the Lie Detector, A. In: Journal of Criminal Law and Criminology, 1955, vol. 46(414) [cited 06.08.2025]. Available: https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=4397&context=jclc;
11. State v. Valdez, 91 Ariz. 274, 371 P.2d 894 (1962);

12. SIXTH AMENDMENT to the United States Constitution. Adopted on December 15, 1791;
13. NAKAYAMA, O. History of Polygraph Testing in Japan. In: Polygraph, 1989, vol. 18, No. 3, p.193;
14. HAYASHI, T.Y. Development of Polygraph Examination in Japanese Law Enforcement. In: Journal of Police Science, 1974, No. 12, p.45;
15. National Police Agency (Japan). Standards and Guidelines for Polygraph Examinations. Internal Bulletin, Tokyo, 1971;
16. ELSAYED, M. Use of Polygraph in the Middle East: An Overview. In: European Polygraph, 2021, vol. 15, No. 1, p.53;
17. Department of Special Investigation (Thailand). Annual Report. Ministry of Justice, 2020. Available at: https://www.dsi.go.th;
18. Philippine National Police. Polygraph Examination Division – Use and Legal Framework. Internal document, 2022;
19. SISON, A.T. Admissibility of Polygraph Evidence in Asian Legal Systems. In: Asian Journal of Criminology, 2013, vol. 8, No. 2, p.121;
20. Israel Polygraph Examiners Association (I.P.E.A.). About Us [cited 12.12.2024]. Available: https://polygraph.org.il/en/;
21. National Police Chiefs' Council (UK) [cited 15.11.2023]. Available: https://www.npcc.police.uk/;
22. Bundesgerichtshof (BGH). Judgment of 16 February 1954 – 1 StR 578/53;
23. Bundesgerichtshof (BGH). Judgment vom 17. Dezember 1998 – 1 StR 156/98. In: BGHSt, 1999, vol. 44, p.308;
24. SCHWABE, J. Rechtsprobleme des "Lügendetektors". Neue Juristische Wochenschrift (NJW), 1979, P. 576-582. ISSN 0341-1915;
25. UNDEUTSCH, U., KLEIN, G. Wissenschaftliches Gutachten zum Beweiswert physiopsychologischer Untersuchungen. In: BGH-Gutachten, Physiopsychologische Aussagebeurteilung, Praxis der Rechtspsychologie, 1999, vol. 9, suppl., p.45;
26. PATRICK, C.J., IACONO, W.G. Validity of the control question polygraph test: The problem of sampling bias. In: Journal of Applied Psychology, 1991, No. 76(2). P. 229-238 [cited 06.12.2024]. Available: https://doi.org/10.1037/0021-9010.76.2.229;
27. DAHLE, K.P., VOLBERT, R. (Eds.). Entwicklungspsychologische Aspekte der. In: Praxis der Rechtspsychologie, 2005, vol. 9, p.113;
28. Scientific Validity of Polygraph Testing. A Research Review and Evaluation. A Technical Memorandum. Washington, D.C.: U.S. Congress Office of Technology Assessment, OTA-TM-H-15, November 1983, p.108;
29. SHAPOVALOV, V. Review of L.G. Alekseev & F.V. Potemkin's The Problems of Applied Psychophysiology. In: European Polygraph, 2017, vol. 11, No. 4, p.189-191, ISSN 1898-5238;

30. ZLOBIN, G., JANI, S. The Problem of Polygraph. In: Problems in Improving Soviet Legislation, Proceedings of the Institute of Soviet Legislation, 1976, No. 6, p.122;
31. ALESKOVSKIY, S. Earliest History of Kazakhstan Polygraph. In: European Polygraph, 2022, vol. 16, No. 1, p.5-17, ISSN 1898-5238;
32. WIDACKI, J. Review of Detektor lzhy na strazhe istiny (Lie Detector Guarding the Truth) by Vladimir Kniazev. In: European Polygraph, 2010, No. 4, p.231;
33. KHOLODNY, Yu. Interrogations Using a Polygraph in Russia: 15 Years of Legal Application. In: European Polygraph, 2008, vol. 2, No. 4, p.73-83, ISSN 1898-5238;
34. KOMISSAROVA, Ya. Polygraph Examinations in Russia: Trends and Prospects. In: European Polygraph, 2020, vol. 14, No. 1, p.25-38, ISSN 1898-5238.