

# PSYCHOPHYSIOLOGICAL EXAMINATION: PROCEDURAL AND FORENSIC ASPECTS

**Nikolay K Korovin, Novosibirsk State Technical University**  
**Liliya V Smeshkova, Novosibirsk State Technical University**

## ABSTRACT

*Procedural and forensic aspects of appointment and production of psychophysiological examination are considered in the article. The need of respect for relevancy, admissibility, reliability, sufficiency, a practicality and checkability of proofs is indicated. It is recommended to use the following policy strokes by production of psychophysiological researches: existence of certification and an experience not less than 3 years as the polygraphologist, careful selection of the questions submitted for a research when keeping a procedural order of purpose of a research, selection of a technique of a research at a ratio of control and auxiliary tests not less than three, a quality and quantitative evaluation of the polygraph charts, forming conclusions and applications the conclusion of the study.*

**Keywords:** Polygraph, Lie Detector, Psychophysiological Examination, Criminal Procedure, Operational-Search Measures.

## INTRODUCTION

In jurisprudence rather often there is a need for obtaining evidentiary information by carrying out investigative actions and investigation and search operations with use of technical means.

Law enforcement agencies in many countries of the world including such as the USA, France, Japan, methods of filing and an assessment of psychophysiological reactions widely are applied to identification of the persons involved in the committed crime during the poll with application of a polygraph according to a particular technique.

In the presence of unmovable contradictions in testimonies of witnesses, victims, defendants, suspects or in case of identification of contradictions in contents of the indications or other proofs collected on criminal case psychophysiological examination with use of a polygraph is appointed (Korovin, 2011).

The polygraph (from Greek means "a set of records") is the multi-channel device which is at the same time fixing by means of sensors physiological processes of an alive organism, the emotions, bound to emergence, respirations, the blood pressure, biocurrents of a brain, heart, skin, a musculation and used to detection of information which is perhaps hidden by the person by monitoring of its physiological reactions in response to the asked questions.

## LITERATURE REVIEW

The analysis of works of a number of scientists-criminalists demonstrates that the idea of use of a polygraph as the technical tool used at investigation of crimes is not new and is dated the period of forty-year prescription. So in 1976, Zlobin and Yani considered poll with use of a polygraph as a kind of expert researches (Zlobin & Yani, 1976).

In 1977, Andreyev and Lyubarsky wrote about a polygraph, as about the ordinary technical tool used by production of psychological examinations (Andreyev & Lyubarsky, 1977).

In 1992, Pruks spoke expediency of introduction of a polygraph to criminal legal proceedings in the form of psychological examination (Pruks, 1992). In the late nineties, Belkin wrote: "today there are no bases for objections against use of a polygraph by the expert-psychiatrist or psychologist" (Belkin, 1997).

It is necessary to agree with opinion of the authoritative scientists speaking not only in favour of searching of nonconventional ways of disclosure of crimes, approbation of the modern highly productive methods of obtaining evidentiary information on criminal cases, but also in favour of well-timed introduction in investigative jurisprudence of new types of examinations (Komissarova & Soshnikov, 2002).

In practice of the Russian criminal legal proceedings the polygraph was for the first time applied at the initiative of the Prosecutor General's Office in 1991 in case of murder of Aleksandra Menya. Check showed that the person under investigation did not commit murder and later he was acquitted.

In January, 2005 as a part of Moscow State University of technologies and management the express Institute of a polygraph which is expert establishment on conducting psychophysiological examinations with application of a polygraph within criminal, civil legal proceedings and on cases of administrative offenses now was created.

In February, 2006 the Prosecutor General's Office of Russia to subordinate divisions distributed the information letter for No. 28-05/06-05 "About conducting psychophysiological examinations" where the short review of practice of use of a polygraph was provided in criminal trial of the Russian Federation with a statement of recommendations about conducting similar examinations (Smeshkova, 2012).

The order of the Ministry of Justice of the Russian Federation of December 27, 2012 No. 237 "About the approval of the list of childbirth (types) of the judicial examinations which are carried out in federal budgetary judicial and expert institutions of the Ministry of Justice of the Russian Federation and the list of expert specialties on which the right of self-contained production of judicial examinations in federal budgetary judicial and expert institutions of the Ministry of Justice of the Russian Federation is represented" by an object of research of psychological examination the psychology and psychophysiology of the person are defined. In the Appendix No. 2 of this order such examination is called "psychological" and the expert specialty is defined as "A research of psychology and psychophysiology of the person" (a specialty 20.1 code).

Conformable nomenclature is found within forensic literature. For example, Rossinskaya along with forensic-psychiatric allocates judicial and psychological examination (Rossinskaya, 2014).

Thus, in cases when at clarification of circumstances, important for business, express psychological knowledge is required, it is necessary to appoint and conduct psychological

researches for establishment of ability of mentally healthy sub expert faces to perceive the circumstances important for business and to give about them authentic evidences.

## MATERIALS AND METHODS

Purpose of examinations happens by pronouncement of the resolution of the investigator, the investigator or court consisting of an introduction, descriptive and closing part. At pronouncement of the specified proceeding decision various policy strokes can be used: decision-making; definition of a type of examination; statement of questions; indication of number and facts of the case, dates and places of removal, position, rank, surname, name, investigator's middle name; choice of the expert; preparation of objects and exemplars, their packing; acquaintance with the resolution; an assignment to the chief of the centre about an explanation of the rights and duties to the expert; interaction with the expert (Korovin, 2011).

The expert opinion consists of an introduction, research and closing part. By production of a research, as well as when carrying out investigative actions and investigation and search operations, an important role is played by the right choice of a form of fixing of evidentiary information (Korovin, 2011).

Owing to one of the fundamental principles enshrined in Art. 8 of the Federal Law "About the State Judicial and Expert Activity in the Russian Federation" the expert conducts researches objective, on strictly scientific and practical basis, within the corresponding specialty, comprehensively and in full. The expert opinion has to be based on the provisions giving the chance to check validity and reliability of the drawn conclusions on the basis of the standard scientific and practical data. At the same time experts have to pay an attention to instructions of the p. 6 of Art. 164 of the Code of Criminal Procedure: "by production of investigative actions technical means and ways of detection, fixing and withdrawal of traces of crime and material evidences can be used".

According to Art. 204 of the Code of Criminal Procedure of the Russian Federation the expert opinion includes: the list of the questions raised at purpose of examination; the list of objects of a research and materials submitted for production of judicial examination; contents and results of researches with the indication of the applied techniques; conclusions on the questions raised before the expert and their justification. As a constituent of the expert opinion are the materials illustrating the conducted researches (photos, schemes, schedules, etc.), have to be attached to results of psychophysiological examination the listings of schedules of physiological reactions (polygraph charts) received by the polygraphologist.

Feature of production of psychophysiological examination consists that at its preparatory stage it is necessary to make the list of questions on which contents and the formulation the result of all research in many respects depends. A working stage of statement of questions and obtaining answers for fixing of visual and figurative information in the form of gestures, mimicry, voice and the intonations which are shown in reaction interrogated on the questions posed it is expedient to carry out with application of a forensic video.

The forensic video needs to be made so that got into the shot interrogated, interrogating and the screen of the monitor. If necessary the forensic video can be investigated in preliminary investigation or is reproduced in court session and the image is analysed for repeated interpretation polygraph charts, obtaining the information specifying or establishing the new circumstances bound to a crime event.

At poll of the examinee change of physiological indexes in a type of his experiences, distortion of the received mental reactions by causing tested to itself pain or by means of rendering other impact on characteristic mentality is possible. These factors in many respects cause impossibility of check and an assessment of results of a psychophysiological research on relevancy, admissibility and reliability that in turn calls into question their evidentiary status.

## RESULTS AND DISCUSSION

Conclusion about argumentativeness of use of results of the investigative actions which are carried out with use of a polygraph is traced in the context of a number of decisions of the supreme courts. The constitutional court of the Russian Federation repeatedly emphasized that "...The Code of Criminal Procedure of the Russian Federation does not regulate use of a polygraph when carrying out investigative and other procedural actions, including judicial examination".

The analysis of law-enforcement practice of the Supreme Court of the Russian Federation also finds a position on an occasion of prevention of use of results of application of a polygraph as proofs. According to point 5.2.1, the review of cassation practice of Judicial board on criminal cases of the Supreme Court of the Russian Federation for the second half of the year 2012 "...According to the criminal procedure law psychophysiological researches are not proofs..." (The review of cassation practice...).

At the same time scientific achievements of the last years and the analysis of law-enforcement practice are revealed by need of application of a polygraph by production of investigation and search operations and in the future, perhaps and investigative actions. Commission of crimes with use of new technologies sets a task to actively introduce the most efficient achievements of scientific and technical progress in operational search activity and criminal legal proceedings for the law enforcement official (Gladysheva & Chelyapin, 2014).

For decades of application in domestic procedural practice of poll in the form of judicial psychophysiological examination with use of a polygraph the regulatory base in the form of a complex of subordinate regulations was created, qualification requirements to the experts conducting surveys and techniques of their vocational training are developed, methodical methods of holding poll are fulfilled, the modern domestic exemplars the polygraph of devices are created. The corresponding developments widely take root into practical activities of operational divisions and investigative services of law-enforcement bodies, FSB, the Investigative Committee of the Russian Federation.

For further perfecting of a technique of carrying out psychophysiological researches it is offered to use as the polygraphologist the expert with the higher education in the direction of preparation 37.04.01 Psychology approved by the Order of the Ministry of Education and Science of the Russian Federation of September 23, 2015 No. 1043 "About the approval of the federal state educational standard of the higher education in the direction of preparation 37.04.01 Psychology (magistracy level)".

In the State educational standard of higher education, in a professional cycle of a base all professional unit in the list of the disciplines which are subject to studying the discipline "Psychophysiology" (B.3 code) is referred, at the same time according to the gained knowledge, skills the graduate the expert can carry out different types of professional activity, including research, diagnostic and correctional, expert and advisory, etc. On the basis of the above experts

in the field of carrying out psychophysiological researches offer to develop the professional standard of polygraphologists (Alekseev's performance).

The question of a possibility of use of results of poll with use of a polygraph as evidentiary information is not less important. In criminal procedure literature the set of techniques which application will cause achievement of this purpose is developed and offered. In particular, Orlov and Holodny suggests considering the following criteria by production of psychophysiological researches (Orlov and Kholodnyi, 2013):

- Existence of obligatory certification as the polygraphologist owning the production technology of psychophysiological researches.
- Length of service of the expert as the polygraphologist, not less than three years.
- The questions submitted for a research during judicial and psychophysiological examinations with application of a polygraph (further–JPEAP).
- Technique of production of JPEAP.
- Keeping of a procedural order of purpose of JPEAP.
- Quantity and a ratio of the tests used by the expert by production of JPEAP; at the same time the number of the control tests aimed at the solution of questions of an expert research has to be not less than five and auxiliary (adjusting) tests – not less than three.
- An assessment of polygraph charts which is established in three types: 1) quality standard when the polygraphologist without any quantitative measurements at discretion takes out judgment of the size of reactions to this or that question; 2) a mark assessment when the polygraphologist estimates reactions on the 2<sup>nd</sup>, 3<sup>rd</sup> or 7-mark system; 3) the metric assessment when, having made measurements of reactions in some units of measurements (for example, mm or pixels), the polygraphologist applies methods of mathematical statistics during further calculations and, thereby, minimizes subjectivity of an expert assessment (Isaeva, 2008).
- A formulation of conclusions following the results of production JPEAP; at the same time the polygraphologist "cannot be limited only to the instruction on the fact that at a research the reactions testifying to something as "the reactions (recorded by means of a polygraph) and testimonies of participants of process as set of data on something – the multilevel phenomena" are revealed (Komissarova, 2012).
- Annexes to the expert opinion in a look polygraph charts (in electronic form and unpacked on paper) and videos of a pre-test conversation and immediate testing; the specified materials in total with results of a metric assessment of polygraph charts allow to make production of JPEAP by "transparent" and actions of the polygraphologist and results received by it checked.

## CONCLUSION

Nowadays in many countries of the world the polygraph is successfully used in the fight against crime. Basically, the results of inspections are of an auxiliary nature and only in 3 to 4 countries are used in court as evidence. These shortcomings are natural. The introduction of a new one always involves active opposition.

Use in practice of the listed above criteria will allow to carry out quickly primary assessment of results of judicial and psychophysiological examinations with application of a

polygraph, to successfully eliminate expert opinions with apparent methodical and procedural defects and in general can promote increase in evidentiary value of results of surveys conducted with use of a polygraph.

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