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On the issue of prospects for the use of polygraph in Kazakhstan

Abstract. *The article analyzes the theoretical and applied aspects of the use of the polygraph in the domestic and foreign practice of selecting candidates for work. The authors considered a conceptual, ethical, and evidence-based basis for the use of the polygraph in personnel work.*

The article justifies the use of the polygraph as an effective tool for ensuring the security of organizations, reveals the main topics of the questions used in personnel checks, as well as the reliability of the conclusions made on the basis of the data obtained using the polygraph. The prominent place is given to the quality of polygraph testing, where professional competence and the quality of initial training are of key importance.

It is shown that it is necessary to develop a unified methodology for training domestic polygraph examiners, their subsequent certification, as well as scientific support for polygraph activity. The latter is essential since to improve the quality and effectiveness of the polygraph application, it is required to adapt and develop new methods of polygraph testing adapted to the socio-cultural characteristics of Kazakhstan. The priorities of scientific research of the newly created psychophysiological laboratory at the Department of theoretical and practical psychology of the al-Farabi Kazakh National University are highlighted. Paramount of them is the study of the influence of on the one hand socio-cultural, semantic and attitudes on the success of detecting hidden information, and on the other hand a study of the manifestations of individual psychological mechanisms, studies of the phenomenon of lying.

Keywords: *polygraph, psychophysiological examination, personnel check, phenomenon of lying.*

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Introduction

The problem of revealing hidden information has been relevant for many years. At present, specialists of domestic and foreign psychology are introducing into practice the method of instrumental detection of hidden information using a lie detector. An increasing number of government structures and private commercial companies are using the method of revealing hidden information for professional purposes.

The study of this problem is closely related to the search for reliable, fast and economical ways to combat crime, recruitment and the formation of loyalty of the organization's personnel.

An important step of integration of science and practice in the field of personnel management is the introduction of polygraph testing in the selection of employees at work. In particular, this is significant in areas where honesty, trustworthiness of employees, control over the use and leakage of official information is

required. It should be noted that the polygraph is a powerful weapon in the hands of an experienced specialist. Its scope is almost limitless. Being inherently a «gauge» of psychological stress, it can be successfully used in all cases when two tasks intersect: to obtain information - to hide this information. It does not matter where and for what tasks it is necessary to obtain information, another thing is important: the higher the level of motivation in hiding information, the more pronounced the changes in the neuropsychic sphere of the subject, the more clearly the recorded changes on the polygraph [1].

The main part

A survey using a polygraph is a complex psychological and psychophysiological procedure and is a non-traumatic and absolutely harmless to life and health, organized according to special methods, a procedure for interviewing a person using control and assessment of physiological reactions, which are recorded using sensors placed on his body. The purpose of a survey using a polygraph is to assess the reliability of information received from the interviewed person by fixing the respondent's physiological reactions to the questions asked.

Traditionally recorded psychophysiological processes are respiration, changes in the electrical resistance of the skin and the activity of the human cardiovascular system. In the interests of a survey using a polygraph, other dynamic psychophysiological processes in the human body can also be used, but the three above are strictly mandatory in the world practice of performing a survey using a polygraph.

Many years of positive experience in using the polygraph in such leading countries as the United States, Canada, Israel, Russia and others, has shown its high effectiveness as a reliable tool for selecting personnel [2].

The probability of recognizing hidden information in a polygraph interview can be influenced by numerous psychological factors, such as establishing psychological contact between a polygraph specialist and the interviewee, understanding the psychological

meanings of the questions to the interviewee and his attitudes, taking into account the individual psychological characteristics of the interviewee, the degree of mental or physical exhaustion of the interviewee, etc.

In our country, the use of polygraph has become widely used recently, in connection with the legislative consolidation of it as a mandatory procedure for employment in law enforcement agencies.

Currently, one of the most important tasks of selecting candidates for law enforcement agencies is to ensure that honest, respectable personnel enter the service. It is unacceptable to get into the government bodies of people who are pursuing their own selfish goals, are mentally unstable, have connections with the criminal world, use drugs, etc.

Meanwhile, today there are many publications and statements on the Internet that relate to the use of the polygraph with certain wariness and some with the real connotation.

In this regard, I would like to note several key points of the use of polygraph, which are covered in a distorted way, misunderstood, and as a result, cause distrust and skepticism among ordinary citizens in the course of surveys on the polygraph in the hiring process.

The first is the statement that the candidates for work and employees of the organization who require compulsory testing using a polygraph allegedly express mass dissatisfaction and negative perception of this procedure.

In reality, the situation is quite the opposite. As evidence, we can cite the fact that for many years, Federal agencies of the USA have been conducting surveys of all employees and job candidates who have passed polygraph tests, to determine their attitude to this procedure. The results of these surveys consistently show that the absolute majority of people who have passed such testing believe that it was conducted professionally, correctly, without any violations or abuses, and fully support the validity of holding polygraph study in the interests of their organizations [3].

This is since candidates for the job and law enforcement officers, as well as other

administrative bodies with increased responsibility to society, clearly understand that they are inevitably subject to increased requirements for the presence of such important qualities as trustworthiness, honesty, etc.

The number of discontented with the practice of polygraph testing, the proportion of which is insignificant, usually includes people who either really has problems with the range of issues that are discussed during the study, or have certain personal characteristics, a tendency to criticize everything that happens around them.

However, it should be noted in any case, in the aspect of ensuring the rights and freedoms of a person and a citizen when using a polygraph, the question of the voluntary consent to undergo a test is extremely important.

In countries that allow the use of a polygraph for law enforcement purposes, the principle of voluntary testing on a polygraph has a clear legal basis. For example, in Canada, when starting a polygraph test, the operator makes sure that the subject understands that the test is a voluntary procedure, and he is a voluntary participant in this procedure. The auditee is informed of his rights and asked to give written consent in the prescribed form. In the United States, the rights of a person being tested on a polygraph are guaranteed by the Miranda Code. A similar system exists in Poland.

It is very important that it is legally established that the refusal of a person from the test is not qualified as a sign of his guilt and does not entail any adverse consequences for him.

Secondly, there are critical statements that polygraph examiners ask candidates unacceptable questions that go beyond the conventional etiquette, affect certain areas of personal life that are related to security matters and specifics of the upcoming work. Correspondingly, it appeared that polygraph examiners are given too much freedom in choosing topics for testing with a polygraph.

Nevertheless, this is completely untrue, since all the topics that are investigated during polygraph tests are carefully selected and legally fixed. They cannot be changed or arbitrarily supplemented by polygraph examiners who

directly conduct testing. In particular, questions related to the sphere of a person's intimate life are never asked, unless it is about some criminal actions in this area.

As a rule, candidates for work, especially when applying to law enforcement agencies, are tested on a polygraph in relation to topics such as:

- identification of negative motives for joining the service;
- identification of behavioral disorders associated with the use of psychoactive substances (alcohol, drugs, certain drugs, etc.);
- clarification of personal data (second citizenship, use of false documents, etc.);
- identification of possible contacts with criminals or intelligence services of foreign countries;
- identification of the presence of harmful inclinations and some features of behavior (tendency to sadism, etc.);
- establishing the facts of committing antisocial acts and various crimes in the past (bringing to administrative or criminal liability);
- the presence of pronounced attitudinal behavior (obtaining unreliable results of a psychodiagnostics examination).

However, it would be naive to believe that the introduction of a polygraph into the activities of law enforcement agencies will become a panacea in the fight against crime. But the polygraph test as a means of searching for evidence has every right to occupy its own niche in the arsenal of modern scientific and technical means used in domestic forensics. In this aspect, it is especially important to legislatively regulate psychophysiological research on a polygraph, in which guarantees of ensuring and protecting constitutional rights and freedoms of man and citizen should be especially carefully considered.

Citizens who are adequately aware of the need to ensure the security of the organization will obviously agree that the study of these topics in relation to new entrants is vital in terms of ensuring the stability of the organization itself. Moreover, when considering several candidates for one vacant position, the choice of the most worthy, honest one is essential from the point of view of social justice.

The third is the opinion that the results of testing using a polygraph are not accurate. And this topic is really important.

Primarily, it is necessary to understand that there are no methods in nature that have 100% accuracy, especially in relation to human research, and this is a fundamental fact.

There are no such methods in medicine, psychology, criminology, or any other field. Polygraph testing is no exception. Polygraph scientists note that the natural-scientific mechanisms of the instrumental method of revealing hidden information in psychological science remain insufficiently developed. Conclusions based on the results of the instrumental method of revealing hidden information are of orienting value and cannot be used as evidence [4]. However, the absence of precision of methods in all areas of human life still does not prevent their widespread effective practical use for solving numerous pressing problems.

For instance, in the case of medical diagnostics, conclusions based on the results of polygraph testing are never made on the basis of a single measurement. Similar to the procedure for consulting doctors' points of view in medicine, the results of a polygraph survey are always compared with other related data.

The effectiveness of the polygraph is questionable for people with diseases and conditions that are a contraindication for polygraph examinations. Although this study does not harm human health and theoretically can be carried out with respect to any person, science has identified a number of diseases for which it is prohibited to conduct a survey: shock and pre-shock states; severe physical or mental exhaustion, alcohol or drug addiction; a sharp decrease in intelligence, the presence of a number of mental disorders in the respondent or an exacerbation phase of certain diseases associated with impaired activity of the cardiovascular or respiratory system. There are also certain age restrictions for the interviewed persons.

Insights on specific individuals can be exclusively formulated under the comprehensive study and evaluation of job candidates and employees using various complementary

methods, and polygraph testing is only one of them.

At the same time, it is important to emphasize that errors in polygraph research are inevitable. Ignoring the imminence of errors during polygraph testing and, thus, groundless recognition of the «infallibility of the polygraph» in practice can lead to the formation of an imaginary idea of the security of an organization or department, which is allegedly guaranteed by the large-scale use of the polygraph.

As in any research related to the study of the human phenomenon, especially the assessment of the reliability of its psychological, psychophysiological and physiological responses, there are many risks of the influence of various elements. Minimizing these risks depends on two main interrelated factors.

First of all, it is the professional competence of the polygraph examiner, determined largely by the quality of his professional training.

There are a sufficient number of organizations that train specialists in the Kazakhstan market. There are also foreign groups, mainly from Russia. Almost each of these organizations emphasizes the excellence of their school, appealing to the unique experience and the use of exceptional knowledge.

It is the problem of high-quality training of polygraph examiners that is most acute today, and its roots lie in the lack of uniform standards for training and education of specialists. Accordingly, organizations that provide paid educational services, taking advantage of this, present different, sometimes non-system training programs, based on their preferences or ready patterns of foreign approaches and schools [5].

Concurrent the needs and requests of Kazakh polygraph examiners are often not taken into account. Today, we hardly have much analytical and research works on the study of the main problems and errors in the activities of practical polygraph examiners. It is on the basis of these problems and errors that the content of training and retraining of polygraph examiners should be determined.

Of course, the holding of certain short-term courses, including advanced training with the invitation of foreign experts (*this is what now*

attracts organizations that provide training), has a certain positive effect.

However, the extent to which the knowledge obtained in these courses is correctly applied in practice, which methods work and which do not, how compatible and harmonious they are with previously obtained knowledge and experience, whether they have a positive effect on improving the quality of polygraph use is practically not studied by anyone.

Partly addressing this issue may contribute to the recently created unified polygraph training center for law enforcement agencies for law enforcement bodies at the Academy of the NSC of Kazakhstan, which carries out preparation and retraining of specialists for law enforcement agencies.

We believe that the creation of this center is a serious step in improving the quality of training of the required specialists. Moreover, it is quite obvious that this center in the future should form the basis for creating a single center for certification of specialists-polygraph examiners of law enforcement and special agencies.

The creation of such a center to ensure the development of a unified approach to the method of using the polygraph, continuous quality control of practical work of specialists will allow you to put a systematic effort to correct shortcomings and deviations that could affect the accuracy and effectiveness of the use of the polygraph.

However, this center helps to solve the issue of the quality of training for the law enforcement agencies of Kazakhstan, while its use in commercial organizations is still open.

Secondly, effective use of the polygraph requires fundamental scientific support.

Unfortunately, it should be noted that despite the popularity of polygraph tests, there is almost no serious information about scientific research in this area. There are some publications that are more fragmentary and do not have methodological justification.

Taking into account the lack of a unified approach to solving the psychophysiological problem in science, especially in matters of the influence of individual psychological characteristics of a person on the extraction of

information from memory, scientific support for «lie detection» is vital [6].

For example, it is proved that the psychophysiological complex of a person is strictly personalized, is caused by genetic, social, and socio-cultural factors, and what is especially important is little studied, or even not studied at all by modern science. For example, only recently have scientists come to the conclusion that emotion-based mental and physical states are different in representatives of Western European and East Asian cultures.

Accordingly, the use of a polygraph in a particular socio-cultural environment requires its own scientifically-based approaches and adjustments. This is not just an adaptation of testing methods using a polygraph, but a comprehensive study of a large number of psychophysiological processes.

Unfortunately, we can observe that in our country there is a simple copying of polygraph testing methods developed in a different socio-cultural environment.

This copying is so cliched and low-quality that it turns the use of a polygraph into «pseudoscience». For example, our polygraph testing methods are adopted by specialists from Russia, many of whom, as the practice has shown, do not trouble themselves with the scientific and methodological justification of the methods used. Moreover, they are more imitative of these methods from Western specialists without corresponding scientific approbation.

Conclusion

In this regard, for the full development of the polygraph, the discovery of its new features and prospects, comprehensive research in this area with the involvement of leading research centers is necessary. This applies to the survey techniques and methods (psychological component), reaction registration (psychophysiological component), data flow differentiation (physiological component), as well as the legal basis for interpretation (legal component) and software (data processing). A major step in this direction is the opening of a scientific psychophysiological laboratory at the Department of

theoretical and practical psychology of al-Farabi Kazakh National University. The activity of the newly created laboratory is aimed at conducting fundamental and applied scientific research on human psychophysiology, including polygraph testing. The main research priorities of this laboratory will focus on the study of the impact

of socio-cultural, semantic and psychological attitudes on the success of revealing hidden information, on the other hand, the study of the manifestation of individual psychological characteristics, mental state, cognitive processes and neurophysiologic mechanisms in the study of the phenomenon of lies.

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Қазақстандағы полиграфты қолданудың болашақ көрінісі

Аңдатпа. Бұл мақалада жұмысқа үміткерлерді іріктеудің отандық және шетелдік тәжірибеде полиграфты қолданудың теориялық және қолданбалы аспектілеріне талдау жүргізіледі. Мұнда кадрлық жұмыста полиграфты қолданудың тұжырымдамалық, этикалық және дәлелді негіздері қарастырылады.

Мақалада ұйымдардың қауіпсіздігін қамтамасыз етудің тиімді құралы ретінде полиграфты пайдаланудың орындылығы негізделеді, кадрлық тексеру кезінде қолданылатын мәселелердің негізгі тақырыптары, сондай-ақ полиграф арқылы алынған деректер негізінде жасалған қорытындылардың дұрыстығы айқындалады. Полиграфта тестілеуді өткізу сапасы мәселелеріне ерекше көңіл бөлінеді, мұнда кәсіби құзыреттілігі мен бастапқы дайындық сапасы маңызды.

Отандық полиграфологтарды даярлаудың бірыңғай әдістемесін әзірлеу, оларды кейіннен аттестаттау, сондай-ақ полиграфологиялық қызметті ғылыми қамтамасыз ету қажеттігі көрсетілген. Соңғысы маңызды мәнге ие, өйткені полиграфты қолданудың сапасы мен тиімділігін арттыру үшін Қазақстанның әлеуметтік-мәдени ерекшеліктеріне бейімделген полиграфта тестілеудің жаңа әдістерін бейімдеу және әзірлеу талап етіледі. Әл-Фараби атындағы Қазақ ұлттық университетінің теориялық және практикалық психология кафедрасы жанынан жаңадан құрылған психофизиологиялық зертхананың ғылыми зерттеулерінің басым бағыттары анықталды. Олардың ішінде ең маңыздысы бір жағынан жасырылған ақпаратты анықтаудың табыстылығына әлеуметтік - мәдени, мағыналық және психологиялық ұстанымдардың әсерін зерттеу, екінші жағынан-өтірік феноменін зерттеу кезінде жеке-психологиялық тетіктердің көрінуін зерттеу болып табылады.

Түйін сөздер: полиграф, психофизиологиялық сараптама, кадрлық тексеру, өтірік феномены

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К вопросу о перспективах применения полиграфа в Казахстане

Аннотация. В данной статье проводится анализ теоретических и прикладных аспектов применения полиграфа в отечественной и зарубежной практике отбора кандидатов на работу. Рассматриваются концептуальные, этические и доказательные основы применения полиграфа в кадровой работе.

Обосновывается использование полиграфа как эффективного инструмента обеспечения безопасности организаций, раскрываются основные темы применяемых вопросов при кадровых проверках, а также достоверность выводов, сделанных на основе данных, полученных с помощью полиграфа. Большое внимание уделяется вопросам качества проведения тестирования на полиграфе, где профессиональная компетентность и качество первоначальной подготовки имеют ключевое значение.

Показана необходимость выработки единой методики подготовки отечественных полиграфологов, их последующей аттестации, а также научного обеспечения полиграфологической деятельности. Последнее имеет важное значение, так как для повышения качества и эффективности применения полиграфа требуются адаптация и разработка новых методов тестирования на полиграфе, адаптированных к социокультурным особенностям Казахстана. Выделены приоритеты научных исследований вновь созданной психофизиологической лаборатории при кафедре теоретической и практической психологии Казахского национального университета имени аль-Фараби. Первостепенными из них являются изучение влияния с одной стороны социокультурных, смысловых и психологических установок на успешность выявления скрываемой информации, с другой – изучение проявления индивидуально-психологических особенностей, состояния психики, когнитивных процессов и нейрофизиологических механизмов при исследованиях феномена лжи.

Ключевые слова: полиграф, психофизиологическая экспертиза, кадровая проверка, феномен лжи.

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