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## **Social perceptions of polygraph examinations in Poland, their utility in security agencies and other fields of activity**

### **1. Polygraph examinations in Polish literature**

In Polish scientific literature one can come across a heterogeneous position on the assessment of polygraph examination usefulness. Many authors stress that criticizing the method is associated with insufficient understanding of the essence of examinations done by the means of polygraph. In a significant proportion of psychology environment, also in Poland, there is a popular misconception of polygraph examinations, connected to works by Paul Ekman, dealing with the nature of emotions and methods of dishonesty detection on the basis of microexpression.<sup>1</sup> The author indicates that lies can be detected in situations when people feel fear, feel guilty, feel joy, and other emotions. He also stresses that while looking for clues about lying, one should remember about the risk of the so called Othello error<sup>2</sup> and the possibility of mistakes resulting from the failure to include individual differences in emotional behavior of the examined person. As far as polygraph examination is concerned, Ekman admits that his assessment of the polygraph is based on other scientists' works. In his own works it can be noticed that there are no scientific proofs confirming reliability and precision of the method.

There is a lot of works by Polish authors indicating the high accuracy of polygraph examination and a wide range of its application. J. Widacki and J. Konieczny are the precursors in the field. The results of one of the experiments by Widacki proved that polygraph examinations are as valuable as other methods of criminal identification.<sup>3</sup> Nevertheless, part of the legal community shows skepticism when it comes to using polygraph examination as legal proofs in Polish penal proceedings. P. Herbowski points out that polygraph examinations during lawsuits are often perceived as a method to directly assess truthfulness of an examined person, i.e. detecting lies.<sup>4</sup> The situation has been clarified by the decision of the Supreme Court of January 29, 2015 (I KZP 25/14), in which the possibility of polygraph examination of a suspect, defendant or

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<sup>1</sup> P. Ekman, *Kłamstwo i jego wykrywanie w biznesie, polityce i małżeństwie*, Warszawa 2006.

<sup>2</sup> In Shakespeare's *Othello*, Othello falsely believes that his wife, Desdemona, has been cheating on him with another man. Seeing his wife's emotional distress, Othello interprets it as her reaction to hear of her alleged lover death.

<sup>3</sup> J. Widacki, *Badania poligraficzne w Polsce*, Kraków 2014, pp. 135–138.

<sup>4</sup> P. Herbowski, *Wykrywcze wykorzystanie wyników badań poligraficznych*, „Problems of criminalistics”, No 267, 2010, pp. 12–14.

witness was confirmed. The decision stated also that a formal expert's opinion based on the examination, treated both as incriminating evidence as well as rebutting evidence (according to Article 199a of the Code of Penal Proceedings of 6 June 1997 – Journal of Laws 1997, No 89, item 555, as amended<sup>5</sup>).

## 2. Perceiving of polygraph examination by different environments in Poland

According to analyses by J. Moszczyński published in 2011 (see the table) basic recipients of polygraph examinations, i.e. prosecutors and judges – assessed them very low (on a scale from 1 to 10 – respectively: 2,9 and 3,2). Two times higher was assessed even the next type of criminalistics examination, which had gained also very low notes, i.e. osmology identification (6,0 and 5,9).

**Table.** Prosecutor's and judge's preferences on criminalistic examinations.

<b>PROSECUTORS</b>	
<b>Criminalistic examinations</b>	<b>Value assessment (scale of 1 to 10)</b>
Genetic identification	9,82
Dactyloscopic identification	9,81
Pchysicochemical identification	9,0
Firearm identification	8,9
Handwriting identification	8,8
Car accident rekonstruction	7,7
Mouthprint identification	7,6
Audio forensics identification	7,5
Toolprints identification	7,4
Ears Prints identification	7,3
Shoes prints identification	7,0
Osmology identification	6,0
<b>Polygraph examination</b>	<b>2,9</b>
<b>JUDGES</b>	
<b>Criminalistic examinations</b>	<b>Value assessment (scale of 1 to 10)</b>
Genetic identification	9,7
Dactyloscopic identification	9,5
Firearm identification	8,8
Handwriting identification	8,3

<sup>5</sup> *The Act of 6 June 1997 Code of penal proceedings* (Journal of Laws 2017, item 1904).

Pchysicochemical identification	8,3
Car Accident rekonstruction	7,7
Audio forensics identification	7,4
Toolprints identification	7,2
Mouthprint identification	7,2
Shoes prints identification	7,1
Ears prints identification	6,7
Osmology identification	5,9
<b>Polygraph examination</b>	<b>3,2</b>

Source: J. Moszczyński, *Subjectivism in criminalistics*, Olsztyn 2011, p. 206, University of Warmia and Mazury Publishing Company in Olsztyn.

Several years after the study by Moszczyński the preferences have changed slightly in favor of polygraph examinations, but their position in the hierarchy has not changed at all. According to a study by K. Niziołek, at present, prosecutors and judges assign polygraph examination a value of 4/10 (for comparison: genetic identification – more than 9/10, dactyloscopic identification – almost 9/10, firearms identification – slightly more than 8/10, osmology identification – slightly more than 5/10).<sup>6</sup> The surveyed attitude towards polygraph examination has differed according to personal experiences. Those, who had anything to do with polygraph in the past, assessed its value more than one point higher than those who based on a common opinion only.

There is a lack of Polish surveys on the level of polygraph examination acceptance in the scientific environment. To compare – such analyses were conducted in the early 21<sup>st</sup> century in the USA.<sup>7</sup> Among surveyed there were members of Society for Psychophysiological Research – SPR, and American Psychology-Law Society – APLS. More than 90% of the surveyed said *yes* to a question – whether materials on polygraph examination published in independently reviewed scientific magazines are based on commonly accepted methodology. Around 70% of scientists assessed that polygraph examination is as much, if not even more, useful evidence as psychological opinion whether a certain person is dangerous or not. 72% of APLS members and 61% of SPR members claimed that in case of reception of evidence from the expert's opinion on polygraph examination in judicial proceeding, the relevance of judicial decisions will increase or will remain unchanged. The minority of the surveyed claimed that the relevance will decrease.

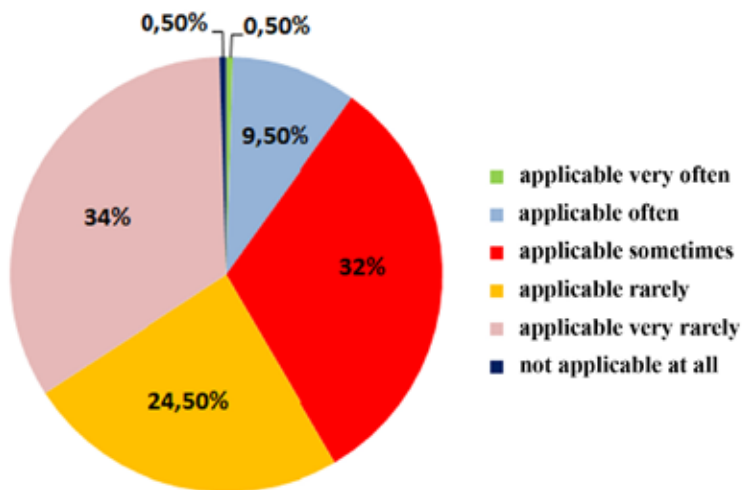
<sup>6</sup> K. Niziołek, *Ocena trafności badań psychofizjologicznych w odniesieniu do polskiego procesu karnego* presentation from the Nationwide Scientific Conference „The role of psychophysiological examination in a human understanding and corrections of human's functioning”, 18 May 2017, UKSW, Warsaw.

<sup>7</sup> C.R. Honts, S. Thurber, D. Cvencek, W. Alloway, *General acceptance of the polygraph by the scientific community: Two surveys of professional attitudes*, paper presented during APLS meeting in Austin (Texas) in 2002.

In order to establish how Polish society (different social groups, not only representatives of judiciary) perceives at present polygraph examination, there was a survey prepared with questions concerning, among other things, the knowledge of polygraph examination, experience with regard to the method or thoughts on its practical application. 200 persons between the ages of 16 to 67 took part in the pilot study. The average age in the group was 25. With respect to gender, the majority of the surveyed were women. Highly educated individuals or in the course of their studies (mainly from the faculties of law, psychology, criminology, internal security) dominated in the group. 33,5% of the surveyed declared full time employment at the time of the survey. They declared the Ministry of National Defense, the Armored Cavalry Brigade, Police, Customs Service, Army, Social Services, public administration, medical and psychotherapy centers, foundations, security companies and HR companies as their work places. 3,5% were self-employed, 2% had agricultural businesses, 4,5% were unemployed, 2,5% were pensioners. The rest were students.

In the surveyed group 63,5% declared that they had known the notion of polygraph examination, 22% admitted direct or indirect contact with polygraph. In most cases the picture of the method came from the knowledge gained during studies, at a workplace or personal interests and mostly from the media (especially from TV documentaries or entertainment – for example “The moment of truth”). 8% of the surveyed have had the polygraph, 36% declared at least basic knowledge how the polygraph testing run and 64% did not know how the whole procedure.

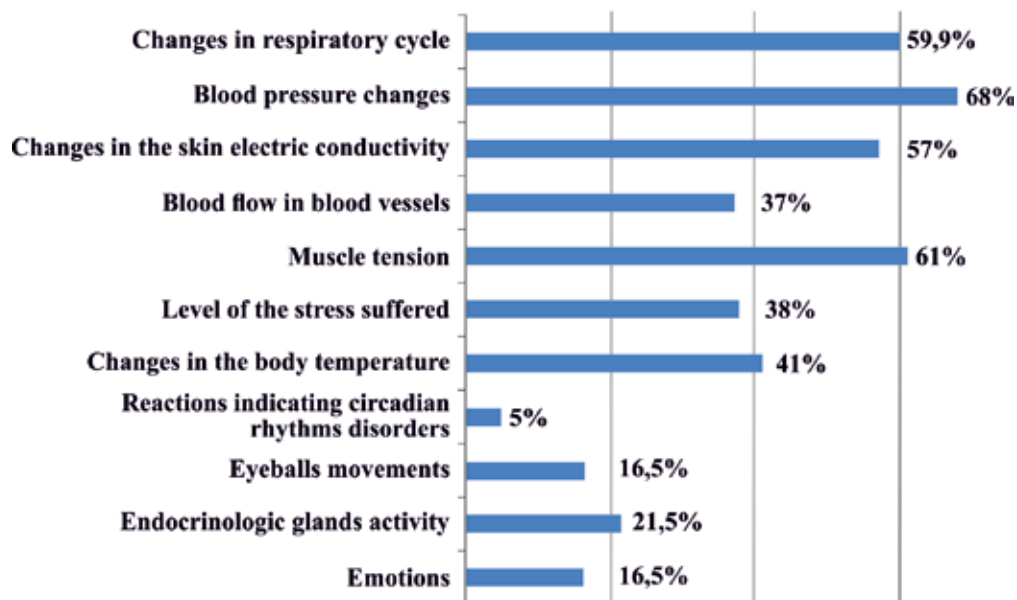
The following chart (pic. 1) shows how the surveyed had imagined the frequency of polygraph examination in Poland.



**Pic. 1.** Application of polygraph examination in Poland.

Source: private study.

Next chart (pic. 2) presents the answers regarding psychophysiological reactions measured by the polygraph.



**Pic. 2.** Answer for the question about psychophysiological reactions measured by the polygraph.

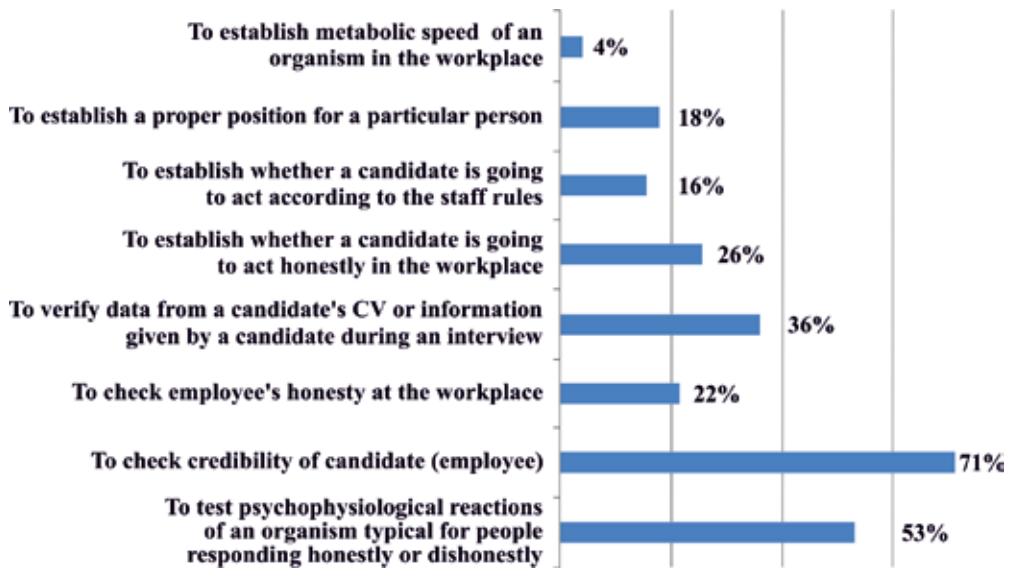
Source: private study.

Among answers given there are correct options, i.e. changes in the respiratory cycle (indicated by 59,5% of the surveyed), changes of the blood pressure and pulse changes (68%), changes in the electric conductivity of the skin (57%), changes in the volume of blood in blood vessels (37%) and muscle tension, i.e. movements of the tested person (61%).

Incorrect options concerned the following: level of stress (38%), changes of the body temperature (41%), reactions showing circadian rhythm disorders (5%), movements of eyeballs (16,5%), activity of endocrine glands (21,5%), emotions (16,5%). The answers regarding level of stress and emotions of the tested are connected with the common myths in the society. For example, P. Ekman claims that on the basis of polygraph examination one can notice whether a person feels certain emotions (anger, fear) during the procedure.<sup>8</sup>

Next chart (pic. 3) shows opinions on the possibilities to use polygraph examination during job recruitment procedures:

<sup>8</sup> P. Ekman, *Kłamstwo i jego wykrywanie...*, pp. 171–216.



**Pic. 3.** Answers on a question regarding the application of polygraph in HR assessments. Source: private study.

Apart from those answers consistent with reality – for example checking the credibility of a candidate (71,5% of the surveyed), verification of CV data or verification of information given during a job interview (36%) – there were also answers that indicated the possibility of tracing the candidate's intention<sup>9</sup> of acting honestly at a new workplace (25,5%) and even to establish the speed of people's metabolism in a workplace (4%).

### *Functions of polygraph examinations*

51% of respondents considered that polygraph examinations on a broader scale would contribute to improving both state apparatus (including law enforcement services) and private companies sector. Nevertheless, 49% of the respondents were of the opposite opinion.

Representatives of the first group claimed that polygraph examination allow to eliminate inappropriate candidates for the service or for the job (*It is especially important as far as services are concerned. It would also be an additional method of confirming the loyalty of employees and of verifying their activities*). They stated also their preventive value (*for example thanks to them the number of frauds and thefts was smaller and inappropriate individuals were discouraged to apply for certain positions*).

The preventive role of polygraph examinations is reflected particularly in studies done in the USA and in the UK on people convicted for offences against sexual freedom and on conditional release. 75% of the surveyed indicated that such studies

<sup>9</sup> Poligraph is not a crystal ball!

would be useful also in Poland<sup>10</sup>. It was supported by the view that (...) *it would make it easier to get to know whether such persons still threaten the security of others, check their activities being at large (in order to verify whether the person has not committed any other offences or breaching conditions of the parole)*. 25% of the surveyed answered that polygraph examinations should not be used in this context because this solution (...) *would be unlawful and limiting personal freedom*. One of the surveyed touched a question of privacy of those examined: (...) *through polygraph testing of the people who were convicted for sexual offences it would be possible to monitor everyday activity of such people and prevent possible committing of other sexual offences by them in the future. Nevertheless, such examination should be applied only when psychiatric evaluation indicate the possibility of returning to criminal activity or the possibility of psychic perversion of the former person sentenced. Such supervision during post-penitentiary stage can appear as too far-reaching and treated as intervention interference into rights and freedoms of a person (right to privacy)*. Some of the surveyed paid also attention to the costs.

Polygraph examinations supporters see also the possibility of gaining important information during investigations (*I am a supporter of polygraph examination especially in courts. There is a bunch of cases regarding for example falsified signatures, last wills, anonymous letters and so on. After such examinations there would be no doubts or polygraph examination during preparatory proceedings could steer investigative organs to a proper direction – circumstantial evidence*). 76% of the surveyed were pro polygraph examinations during criminal proceedings, and 24% were against. Supporters regarded polygraph as “valuable evidence”, and they perceive it as particularly useful in most complex cases, or in a word against one’s word cases. A demand of “careful interpretation” was also added (for example: *No doubt that it is a method giving certain view over certain situation. Despite some doubts about 100% credibility of the method, it can be very useful although it should not be taken for granted and its results should be verified by other methods*).

Simultaneously, it was demanded that polygraph examinations should be treated as a subsidiary method (for example: *They can be a useful source of knowledge if they are combined with other methods, for example interview, or: testing with such tool would be helpful in assigning proper candidates for important state posts or for posts in business companies. It is not the point to focus only on polygraph examinations but to treat them as a guideline or improvement of recruiting process, which could tell what to check more or what to pay particular attention to*).

On the other hand the opponents of polygraph examinations stated that reportedly they are “non-authoritative”, and their results can be associated with (...) *the health condition, drugs, age, stress connected with the testing and so on, and former preparations for the testing makes it possible to deceive device*. This group of surveyed

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<sup>10</sup> More in: M. Gołaszewski, *Użyteczność badań poligraficznych w ograniczaniu recydywy wśród sprawców przestępstw przeciwko wolności seksualnej*, „Prosecution and Law” 2016, No 12, pp.5–22.

states that polygraph examinations should not be used in criminal proceedings because (...) *accuracy of the testing is dubious, (...) emotional situation connected with the testing do have influence on the result, (...) the expertise is costly.*

### 3. Polygraph examinations in state institutions

When it comes to polygraph examinations in law enforcement agencies, 85% of the surveyed stated that they are useful (they responded for example: *It is an exceptionally responsible and demanding job, that is why there is a need to be sure that the candidate does not have any links, for example to groups dealing with drugs. The job is also exceptionally burdensome, that is why it is worth testing during the service whether a person does not break and goes to the dark side; I think that during a recruitment process in services important for the state defense and security polygraph examination is an outstanding and adequate way of candidates verification (it is true that it enters private sphere of the recruited person but it is justified by the specific situation).*

Polygraph examinations in services have not been supported by the minority of the surveyed (15%). There were statements like: *In my opinion polygraph examinations cannot be a source of information about recruited person, the error rate is too high; In my opinion it is additional and unnecessary stress for a candidate who is under a very meticulous verification, anyway.*

The first Polish service that owned polygraph device was Military Internal Service (WSW) – a service that combined competences of military police and military counterintelligence. It bought Keeler polygraph (model 6308) in the late 1960s. A bit later the then Ministry of Internal Affairs (including civil intelligence – Department I and counterintelligence – Department II) bought polygraph devices.

In both institutions polygraph devices were used mainly for training purposes. Probably intelligence agents were also accustomed with such testing, assuming that they might be tested by the American services in the future. In WSW polygraph examinations were used in criminal proceedings, during investigations conducted by the military prosecutors, especially in weapons theft cases. WSW experts were asked by common prosecutors to conduct polygraph examinations in different most serious criminal proceedings, including mostly murder cases.

Up to 1989 the Citizens' Militia had not got any polygraph examinations unit. They had been using WSW experts or university experts. At that time there had not been any polygraph examinations for candidates to the police nor special services.

A major change happened after 1989, after the communism had collapsed. Independence from the USSR, special services and police reorganization and starting unbound cooperation with western countries in different areas, including the USA, which allowed broader use of polygraph testing and using western patterns.

The Police, which replaced the Citizens' Militia, bought first polygraph devices and organized both central facility for polygraph examinations in Warsaw and its four



regional branches. The Office of the State Security established in 1990 started its own polygraph examination unit. Such units started also in the Border Guards and in the Military Gendarmerie (Military Police). After special services reconstruction, The Office of the State Security was transformed into the Internal Security Agency (ABW) and the Intelligence Agency (AW), and the Central Anticorruption Bureau (CBA) was also established, the Military Information Services (WSI) was transformed into the Military Counterintelligence Service (SKW) and the Military Intelligence Service (SWW).

Polygraph examinations are used in recruitment procedures and screening procedures of most police and special services. Recruitment procedures for the particular service are described in acts and anticipate obligatory polygraph examinations for candidates. The procedures are also used to check loyalty of officers and soldiers. The number of examinations for internal use of police and special services is unknown, nevertheless, it can be assessed that it is at least few times higher than in criminal proceedings.

The loyalty means for example obeying the law, mutual commitment between people who trust each other, honesty in everyday activities.<sup>11</sup> It manifests itself by fulfillment of commitments and respecting the rules of honor and rightness.<sup>12</sup> The employee loyalty means that an employee wants to stay in an organization and performs duties with commitment regardless of temporary problems at a workplace.<sup>13</sup> Loyalty in law enforcement environment is based, on the one hand, on pragmatic circumstances, i.e. on a relatively permanent working bond and desires to be promoted in the hierarchical structures. On the other hand, it is based on values, patriotic attitude and citizenship, and personal satisfaction of the officers in a service. It comes from the surveys made between 2015–2016 among employees of Polish companies that a loyal employee is described as an honest, sincere person who performs professional duties carefully and fairly<sup>14</sup>. Conformist subordination to an organization does not come to the fore although, indeed, it is of greater value in services than in a private sector. Before starting their duties in different institutions, officers take an oath of office connected to loyalty. It contains such promises like: service to a nation, loyalty to constitutional organ of the Republic of Poland, diligent obeying the law and discipline of the service, following orders, protecting honor, dignity and a good name of the service.

Candidates for the service in Police, Central Anticorruption Bureau, Intelligence Agency, Internal Security Agency, Border Guards, Military Gendarmerie, Military Intelligence Service, Military Counterintelligence Service, National Revenue Administration as well as officers and workers of those institutions undergo polygraph examinations during the recruitment process.

<sup>11</sup> M. Jarosz and others, *Słownik wyrazów obcych*, Wrocław 2001.

<sup>12</sup> M.S. Szczepański, *Lojalność*, in: *Fundamenty dobrego społeczeństwa. Wartości*, M. Bogunia-Borowska (ed.), Kraków 2015.

<sup>13</sup> A. Lipka, A. Winnicka-Wejs, J. Acedańska, *Lojalność pracownicza. Od diagnozy typów pracowników do zarządzania relacjami z pracownikami (Employee Relationship Management)*, Warszawa 2012.

<sup>14</sup> E. Robak, *Lojalność pracowników a zarządzanie potencjałem społecznym współczesnych organizacji*, „Scientific Notebooks of Polytechnic in Częstochowa. Management” 2016, No 24, Vol 2, pp. 82–95.

The goal of such examinations is to check whether the officer is useful for the service on a particular post or in particular organizational unit and elimination among those from candidates, who should not perform a service or work on a particular position from certain reasons. In case of ABW, AW, SKW and SWW<sup>15</sup>, CBA and Border Guards<sup>16</sup> polygraph examinations can be done for candidates to a positions that require particular skills or predispositions (these are *de facto* all positions).

It is the heads of special services who decide about polygraph examinations. Usually, they are not obliged to justify their decision. It is treated as an element of supervision over the officers. It should also be pointed out that a refusal to undergo the examination would be treated as refusal of following an order, which means disciplinary tort. More precise procedure about polygraph examination exists in case of Border Guards. It is possible only in connection with referral for a training and in cases prosecuted as offences in connection with performing service activities.<sup>17</sup>

In the National Revenue Administration polygraph examinations are applied to candidates for the service in most organizational units of the Customs and Revenue Service<sup>18</sup>. In order to check usefulness for the service on a particular position such testing can be applied also to officers (mainly those who are entitled to perform operational and investigative activities). It is worth to pay attention to criteria for experts carrying out polygraph examinations in the National Revenue Administration. In accordance with the Regulation of the Ministry of Development and Finance of 10 April 2017 on psychophysiological examination, physical fitness test and psychological examination of the Customs and Revenue Service officers<sup>19</sup> – polygraph examiner (...) *holds master's degree, graduated from a specialized course and obtained proper certificate authorized or recognized by the American Polygraph Association (APA), or a course on polygraph examinations at least on a basic level, or does have proper – gained other way – skills to correctly conduct polygraph examinations and to give interpretation of its results, authenticated by Polish polygraph organizations, including the Polish Polygraph Association*. The above mentioned Regulation is the most up-to-date document of this kind in Poland that regulates the qualifications of polygraph examiners.

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<sup>15</sup> *The Defense Minister Regulation of 26 July 2006 on the qualification procedure for candidates to service in the Military Counterintelligence Service* (Journal of Laws 2006, No 137, item 978). *The Defense Minister Regulation of 26 July 2006 on the qualification procedure for candidates to service in the Military Intelligence Service of 26 July 2006* (Journal of Laws 2006, No 137, item 979).

<sup>16</sup> *The Act on the Border Guard of 12 October 1990* (Journal of Laws 2017, item 2365).

<sup>17</sup> According to Article 1.2a of the Act on Border Guard, it is the Border Guard which carries out proceedings in cases of recognizing, preventing and detecting crimes described in Article 228 (passive bribery), Article 229 (active bribery) and Article 231 (abuse of rights, failure to fulfill the obligation) of the Penal Code, committed by Border Guard officers in connection with official duties. (*In such cases it is the Border Guard Commander in Chief who is capable to order for such examination*).

<sup>18</sup> *The Act on National Revenue Administration of 16 November 2016* (Journal of Laws 2016, item 1947).

<sup>19</sup> *Minister of Development and Finance Regulation of 10 April 2017 on the procedure and conditions of establishing physical and psychological abilities, physical fitness and psychological tests of the Customs and Excise officers* (Journal of Laws 2017, item 805).

For the recruitment of Police officers polygraph examinations are to establish predispositions of candidates for the service on particular positions or in particular organizational units, particularly to establish loyalty to the service, reaping unauthorized benefits from the former service and to establish any pathologies and undesirable dependencies in the service. During polygraph examinations there are no questions regarding faith and sexual or political preferences. The examination is recorded (picture and sound), and if the examination result is inconclusive such examination can be repeated only once in 30 days time<sup>20</sup>. A check test is to check whether since the last examination officers did not reveal any secret information, whether they did not make any undesirable contacts or they did not commit any offences or disciplinary misconducts.

Among all services performing their tasks within the scope of the state security, it is only the Government Protection Bureau that had no legal regulations regarding the obligation and – even more – possibility to carry out polygraph examinations to candidates for the service and its officers. In 2018 the Government Protection Bureau was replaced by the Service of the State Protection (SOP). Psychophysiological tests for candidates to the service are obligatory and optional for officers, SOP employees or personnel of other state institutions being brought to the service in SOP.

There is no doubt that if polygraph examinations regarding candidates for services and officers of services are based on legal acts, no other state officials cannot undergo such tests unless the proper act states so.

Police and special services that perform operational and intelligence tasks can also do polygraph examinations to individuals who help services by such tasks.

Polygraph examinations are also allowed in disciplinary proceedings of prosecutors. The Act on Prosecutors<sup>21</sup> (chapter about criminal, disciplinary and work responsibility) states that during disciplinary proceeding in order to limit the range of people suspected of disciplinary misconduct having features of offence if the secret or top secret information from criminal proceedings disclosure disciplinary officer can appoint an expert to use - against the prosecutor with access to such information – technical means of unconscious reactions of the organism, with his consent.<sup>22</sup>

Many years of experience of the rest of Polish law enforcement services prove the high quality of psychophysiological examinations with the use of polygraph device. Since it is the tool that enables to obtain valuable information which is often very difficult or even impossible to obtain via other available procedures. Nevertheless, examinations performed in some state institutions rise sometimes different controversies. First area of controversies is connected to admissibility of such examinations in a legal, formal and ethic sense and doubts about it are reported from outside services with an emphasis

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<sup>20</sup> *Minister of Internal Affairs Regulation of 20 March 2007 on the procedure and conditions of establishing physical and psychological abilities of policemen for the service on certain positions or in certain Police units* (Journal of Laws 2007, No 62, item 423).

<sup>21</sup> The Act of 28 January 2016 The Law on Public Prosecutors (Journal of Law 2017, item 1767).

<sup>22</sup> *Ibidem*, Article 154.

on a reportedly high degree of mistakes when it comes to polygraph examinations. Second area of controversies embraces topic of examinations standardization and quality assurance policy. This part of discussion goes on an inter-ministerial level as well as among officers inside the services and institutions.

The topic of polygraph examinations admissibility has been a subject to considerations of the Constitutional Tribunal<sup>23</sup> that stated that the provisions of acts allowing such examinations in Police are not unconstitutional. State organs are allowed to do only what legal acts order or allow. The scope of such competences are mentioned above for all institutions and should not rise any doubts.

By the way, in private sector there is a general rule that what is not prohibited by the law, should be regarded as allowed. Polygraph examinations in companies are usually performed in the course of recruitment process, and in situations when employee is suspected of any wrongdoing for the employer. A. Drozd points out some labor law representatives who pay attention to possible rights of personality, freedoms, dignity and private life violations<sup>24</sup>. According to him HR examinations with the use of polygraph device can be accepted only when clear legal norms are established and if a candidate or employer accepts the testing. These conditions are in line with the American Polygraph Association<sup>25</sup> and The Polish Association of Polygraph Examinations standards. J. Pietruszka and R. Rogalski admit that polygraph examinations are very often invaluable source of knowledge for employers. The testing allows to obtain information which could not be obtained in any other way.<sup>26</sup>

The opponents of the polygraph examinations require very often an unreal demand of absolute accuracy, citing underrated data (for example 75%).<sup>27</sup> Meanwhile, it should be stressed that polygraph examinations have relatively high and most probably the best diagnostic value comparing to other methods used in criminalistics. An average accuracy of all types of polygraph examinations confirmed by scientific research is 87,1%.<sup>28</sup> In case of diagnostic tests (one-problem test) it is 92,1% and for screening test (multi-problem) – 85%. Data regarding accuracy of polygraph examinations techniques come from different scientific research done in 20<sup>th</sup> and 21<sup>st</sup> centuries. Only those of scientific standards and which were published in independently reviewed magazines or scientific works are taken under consideration. In the result of meta-analysis

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<sup>23</sup> Decision of the Constitutional Court of 23 February 2010, K. 1/2008 LexPolonica, No 2144497, OTK ZU 2010/2A, item 14

<sup>24</sup> A. Drozd, *O dopuszczalności wykorzystywania wariografu w stosunkach pracy*, „Labor and Social Security” 2003, Vol. 4, pp. 9–14.

<sup>25</sup> *Code of Ethics*, [online extract], American Polygraph Association, <<http://www.polygraph.org/assets/docs/Misc.Docs/2015%20code%20of%20ethics.pdf>> [access: 25 V 2017].

<sup>26</sup> J. Pietruszka, R. Rogalski, *Nie odbierać prawa do obrony- artykuł dyskusyjny o poligrafie*, „Labor and social security” 2004, vol. 11, pp. 15–21.

<sup>27</sup> Inter alia P. Słowik, *Rekrutacja do Straży Granicznej: Wariograf wątpliwy, ale nie dla MSWiA*, „Legal Journal” [online], <<http://serwisy.gazetaprawna.pl/praca-i-kariera/artykuly/1026987,rekrutacja-do-strazy-granicznej-badanie-wariografem-w-sadzie.html>> [access: 26 III 2017].

<sup>28</sup> *Meta-Analytic Survey of Criterion Accuracy of Validated Techniques*, „Polygraph” 2011, Vol. 40, No 4.

of data from numerous research there were two important reports summing up average accuracy of polygraph examinations in general and also different types of research and individual research techniques. One of the mentioned reports was issued by the American National Research Council in 2003. At that time the indicator of polygraph examinations accuracy in “concrete and particular cases” was confirmed as ca. 90%. The second report was prepared by the American Polygraph Association in 2011 and currently it is regarded as the best point of reference. As in any other field of science, data from the report should be treated as binding until possible new results of scientific proofs basically change the view.

Much more justifiable in terms of accuracy of texts used in polygraph examinations is a demand for minimalization of error risk formulated in March 2017 by a member of the Helsinki Foundation of Human Rights.<sup>29</sup> Such demands meet professional standards. If any testing, much less, a whole polygraph examination occurs at some stage inconclusive, additional examinations are needed (in the framework of the same testing or next one, replicated). In turn, the so called „successive dealing with obstacles” attitude requires that diagnostic testing is done in order to verify remaining doubts in case of unfavorable results of screening tests for the examined person. Technically, it means that in case of examinations with relatively less accuracy (average 85%), a more accurate examination (average 92,1%) should follow.

It should also be clearly stressed that equating posts in governmental institutions and law enforcement with workplaces in regular institutions or usual workplaces is not possible. There is no need to explain anybody that from the perspective of a state security it is better to reject some percent of candidates – even if not correctly assessed – than, to allow even one person, who is capable to do harm to the state interests, to be let in. The interests of the country, state’s security and protection of classified information shall have priority over anything else.<sup>30</sup>

The rules of polygraph examinations are set out by publicly available standards of professional and standardization international organizations (American Polygraph Association, ASTM International) as well as national organizations (including Polish Society of Polygraph Examinations). Furthermore, there are internal rules and procedures in different state institutions which do polygraph examinations. Standards have been described in Polish-language scientific literature<sup>31</sup> so they are commonly known and accessible, and a language barrier is not a sufficient reason to ignore them.

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<sup>29</sup> P. Słowik, *Rekrutacja do Straży Granicznej: Wariograf wątpliwy, ale nie dla MSWiA*, „Gazeta Prawna” [online], <<http://serwisy.gazetaprawna.pl/praca-i-kariera/artykuly/1026987,rekrutacja-do-strazy-granicznej-badanie-wariografem-w-sadzie.html>> [access: 26 V 2017].

<sup>30</sup> Article 24.4 of the Act of 5 August 2010 on the Protection Of Classified Information (Journal of Laws 2016, item 1167).

<sup>31</sup> *Współczesne standardy badań poligraficznych*, M. Gołaszewski (ed.), Warsaw 2013, „Biblioteka Przeglądu Bezpieczeństwa Wewnętrznego” Warszawa 2013; M. Gołaszewski, M. Widacki, *Aktualny standard badań poligraficznych a praktyka polska*, in: *Badania poligraficzne w Polsce*, J. Widacki (ed.), Kraków 2014.

In HR examinations, like screening testing, scientifically proved techniques with the accuracy level higher than statistic chance, are recommended. They can be used together with the so called „successive dealing with obstacles”.

Separate examinations, in connection with a certain system of testing data analysis, differ between each other not only with an average accuracy but also with sensitivity and specificity. It seems that the optimal solution would be choosing such technique with balanced parameters. Policy of a certain institution may, however, stipulate that the overriding aim is as much sensitivity to deceiving, even at the expense of examination ability to confirm truthfulness of the examined person. Also decision-making thresholds by numerical notes can be regulated – depending on the accepted error tolerance. Normally, error tolerance is accepted, for example, by favorable results for the examined at the level of 0,1. The system could be tightened, however, by lowering the level of tolerance to 0,05 (like in case of results indicating artificiality).

The possibility of choosing from a dozen of test should not mean a total freedom. Also worthy of note is the R/I test (classical), which goes into history books slowly, and relatively short accuracy (at the level of ca. 75%) in combination with alarmingly small specificity and exclusively qualitative (global) method of charts evaluation call into question the meaning of its application anyway. In some conditions it can be useful, but in ordinary situations it is hard to understand the arguments in favor of it (apart from its simplicity and comfort of the examiner) – if other, more effective, exist. Similar objections can also be aroused by peak tension tests (POT) because their results provide the basis for credibility opinion about a person examined. At this point it is worth recalling that the POT examination type with required solution version are only subsidiary.

On the ground of such concerns there comes a subject of the so called “quality control” or – more softly – „quality assurance policy”. In the USA such procedures operate successfully. They contribute to eliminating pathologies (for example custom-made results), limiting subjectivity of examiners, enhancing professional development, and, on the other hand, they guarantee examiners protection from external pressure. In Poland, there have been introduced internal procedures in different institutions. The procedures shall include, inter alia, the so called blind polygrams assessment, checking chosen examinations in full (live or restored) and professional supervision. What is lacking is a supervision and control authority to coordinate polygraph examinations programs on the central and inter-ministerial level, and at the same time it would be responsible for experts training process and scientific research, like the National Center for Credibility Assessment in the USA. There are similar problems in assessments during criminal proceedings. In view of the lack of license procedures the activities of forensic experts are only under formal courts supervision or alternatively under scientific supervision of the environment. Some experts are, however, outside professional associations and are not interested in contacts with other professionals and experts.

Nevertheless, no matter the controversies or problems are, one can sum up that polygraph examinations in Polish administration institutions have quite a long history of practice. It also seems that polygraph examiners have well-established presence and reputation within the respective services. It is only a high quality of expertise (especially for criminal proceedings) and activities in the public sphere that will allow polygraph examinations perceiving in the society to be consistent with the picture of the examinations in services and adequate to real diagnostic possibilities.

### **Abstract**

The issue of psychophysiological examinations utilizing polygraph causes many discussions for scientific and social reasons. Usually, this is connected with limited access to knowledge in this area and consequently – common beliefs operating in Polish public opinion. The article presents the results of a survey, including such variables as: knowledge of the concept of polygraph examination, experience in using this method, opinions about practical application of polygraph examinations (both during recruitment and at the stage of employment in specific positions or in criminal proceedings). The results indicate a miserly range of knowledge about such examinations in the society, largely based on an inadequate or insufficient presentation of this method in the media, press and literature (also covering specialist issues). These perceptions were correlated to the actual utility of polygraph examinations in different fields of practice – particularly in public institutions (uniformed services and others).

**Keywords:** polygraph, psychophysiological examinations, detection of insincerity, utility, officers, public institutions, loyalty, society, survey.