THE FUTURE OF POLYGRAPH IN HUNGARY

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Abstract: Domestic history of polygraph reaches back to 1978, to the very first application of polygraph examination in criminal proceedings in Hungary. Originally, was used in homicidal cases, then - as the years passed - the range of cases grew wider. The new Statute of Criminal Procedure, which entered into force in Hungary in 2018, placed instrumental credibility examination of testimonies among the evidence acts. Instrumental control of testimonies, which was effectively tantamount to polygraph examination may prove or confute the latter. However, some new measures have appeared in the past decades alongside the polygraph. Still, it is questionable whether these or new measures have led to the implementation of the instrumental credibility examination in the new Statute of Criminal Procedure instead of the polygraph. The aim of this study is to answer the questions about the future of the polygraph and possible alternatives.

Keywords: Polygraph, testimony, lie detection, graphometer, Layered Voice Analysis, Brain Fingerprinting

INTRODUCTION

The Statute of Criminal Procedure (XC. Statute of Criminal Procedure 2017, henceforth referred to IV SCP) entered into force on 1st July 2018 and introduced several innovations regarding certain legal institutions. (For details see Fantoly, 2019) One of these innovations is that instrumental control of testimonies became part of evidentiary procedures. This legislative measure is mainly due to the fact that polygraph tests, the most widespread method of instrumental testimony control, have gained recognition in the last few decades. On the other hand, the requirements of efficiency and opportuneness required from IV SCP give grounds for listing polygraph tests as a type of evidentiary procedure, since instrumental control of testimonies, just like some other evidentiary procedures, aim to orientate and facilitate investigations and the discovery of evidence. (Hautzinger, 2019) It is undecided whether the dominance of polygraph tests will be permanent or other not-validated methods, like Layered Voice Analysis or graphometer tests, can be used in criminal procedures.

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THE RECENT PAST AND PRESENT OF INSTRUMENTAL CONTROL OF TESTIMONIES

The previous statute of criminal procedure (XIX Statute of Criminal Procedure 1998, henceforth referred to III SCP) regulated only polygraph tests among the methods suitable for instrumental control of testimonies. Polygraph tests had been used for two decades in Hungarian criminal cases, thus it seemed logical from the part of the legislator to include the most important provisions regarding the usage of the method in a statute of criminal procedure. As other validated methods were not available in Hungary there was no need to widen the scope of instrumental control methods in the statute. As stated in III SCP polygraph tests were performed by a consultant and the subjects could be witnesses of legal age or an accused of legal age. According to a guaranteed regulation, the condition of the performance of the test was the statement of consent of the tested subject (III SCP 180. § Subsection 2, 181. § Subsection 4, 182. § Subsection 2, 453. § Subsection 7). Although no other procedures than polygraph tests were named in the statute, some other methods were used in criminal cases, albeit very rarely. Two lie-detection methods – based on handwriting – were used, the computerized graphometric tests and graphometer. According to the practice, a consultant was appointed to perform the tests and the regulations concerning consultants were applied during computerized graphometric tests and graphometer tests. Although these two tests did not require the voluntary participation of the tested person, the statement of consent was required by law, as is the case with polygraph testing. The statement of consent is vital since a high level of cooperation is needed both in the case of polygraph tests and lie-detection tests based on handwriting. If the tested person does not comply with the instructions of the investigator, the procedure is interrupted or even not started. During a polygraph test, the tested person has to sit still for hours. The situation is the same with graphometer or computerized graphometric tests: if the tested person does not want to cooperate, he/she will not write even if it could be sanctioned. IV SCP does not give the opportunity to employ sanctions as it would hurt the voluntary principle, and the high level of cooperation is based on the intention of the tested person, thus sanctions would be ineffective. As Imre Kertész puts it: the undisturbed test itself proves not only the consent but much more: active cooperation. (Kertész, 1992)

IV SCP started a new era with its regulations; by introducing the notion of instrumental control of testimony it has created a present that is the beginning of the future. It is only the legal background, which does not imply significant changes in the practice. I do not consider it problematic since methods other than polygraph tests have not been validated yet. IV SCP has the intention of standardizing as it uniformly regulates the methods used in instrumental control of testimony. When instrumental control of testimony is applied, it can be performed only by a consultant, who can be questioned as a witness about the procedure and its findings (IV SCP 212. § Subsection 2). The questioning mainly concerns the environment of the examination, the reliability of the lie detection method and its operating principles.

Based on the 79. § Subsection 8 of the Government Decree on the Detailed Rules of Investigation and Preliminary Procedure (henceforth referred to Decree), the consultant is required to produce a memorandum about the instrumental control of testimony, which also includes its findings. This memorandum is part of the investigation files, that is, the memorandum produced according to the Decree substitutes the questioning of the consultant as a witness if authorities do not require further information about the investigation. The questioning of the consultant as a witness can take place mainly during hearings and rarely during investigations. In April 2018 I started an empirical research with a questionnaire, 131 of which was returned until 14th May, 2019. The respondents, 67 of the policemen/women who returned it, worked as investigators or examining officers. Only three out of

these 67 investigators questioned consultants of instrumental testimony control as witnesses during investigatory stage. The questioning of a polygraph consultant as a witness can be justified for example if the defense in a criminal proceeding does not accept the findings of the test because it claims that the accused was not in the right state to be tested, e.g. he/she was under the influence of a drug. Since the method and the reliability of polygraph tests are well known (at least by the authorities) the questioning of a consultant as a witness can be useful in the case of other instrumental methods, when the consultant is required to present the applied procedure to the investigative authority. Consultants are very rarely questioned as witnesses during hearings.

According to IV SCP 87. § Subsection 2 a witness under the age of 18 cannot be examined by the instrumental control of testimony. This regulation is based on the assumption that a successful control requires physical and mental maturity. It is especially true in the case of polygraph testing since it requires a certain level of maturity so that the tested person can be aware of the situation. The legislation can also be interpreted as the fulfilment of the obligation of forbearance in the case of witnesses under 18, who require special treatment e.g. protection against stressful procedures. Based on IV SCP 96. § Subsection 2 'the court, the public prosecutor's office and the investigative authority properly implement the 87. § Subsection 1 and 2 to promote the accused under 18 to exercise rights and undertake obligations.' As a consequence, the testimony of an accused under 18 cannot be controlled instrumentally.

INSTRUMENTAL CONTROL OF TESTIMONY AS EVIDENTIARY PROCEDURE

According to IV SCP, the instrumental control of testimony is part of the evidentiary proceeding. Its codification implies that the result of the instrumental control of testimonies ideally is a memorandum by the consultant, which can be used as means of evidence by the court, since the aim of the evidentiary procedure is to acquire means of evidence. But the practice of the court shows that the result of the instrumental control of testimonies is not accepted as means of evidence. This practice of the court developed when the III SCP was in force and instrumental control of testimonies was not an evidentiary procedure. According to the opinion of the Criminal Chamber of the Supreme Court 4/2007 BK, the list of the means of evidence does not include polygraph tests and the contribution of consultants. It established that polygraph tests cannot be used in court proceedings but minutes about the contribution of a consultant can be the subject of a hearing. The ruling of the High Court of Hungary on a particular case - Bhar.II.1271/2013/8 - supports the opinion 4/2007 BK, as it does not exclude the result of polygraph tests from the subjects of hearings i.e. they can be read during the procedure. Its aim seems to be that any factual data derived from legal means of evidence (typically from testimonies) are to be confirmed as established data. A consultant performing polygraph tests can be questioned as a witness similarly to official people questioning an accused person or witnesses but only about the circumstances of the testimony. As the ruling of Nyíregyháza Court of Law suggests, the result of polygraph tests can be made the subject of a hearing (Nyíregyházi Törvényszék, Nyíregyháza Court of Law 1.B.88/2013/81.). On the other hand, the ruling of the High Court of Hungary on a particular case (Bfv.III.953/2012/34.) mentions that as a result of polygraph tests not the truthfulness of the evidence (the content of the testimony) but the authenticity of the testifying person can be judged. It serves only as an aid, which helps orientation as the testimony itself is the subject of independent evaluation, i.e. the findings of polygraph tests cannot result in evidence. It is supported by the opinion of the Court of Appeal in Budapest (5/2014. IX.29. BK), which prescribes that expert opinions on the results of

polygraph tests cannot be qualified as means of evidence since they are not included in the itemized listings of III SCP. (For details see: Budaházi et al.) I have consulted several judges during the last few months. All of them were of the opinion that in spite of the regulations of IV SCP no modification is expected in judicial practice concerning polygraph tests.

The fact that instrumental control of testimonies became part of the evidentiary procedure suggests that it – first of all polygraph tests - has an important role in orientating investigations. I also agree with the judicial practice according to which the results of instrumental control of testimonies can strengthen or weaken testimonies. Primarily the authenticity of the testimony of the accused denying the perpetration of crime can be strengthened or weakened similarly to the result of re-enactment or presentation for identification. The questioning of the consultant is only an opportunity for the authorities, as the memorandum about the result of the test contains the most important conclusions. As I have mentioned above, the witness testimony of the polygraph consultant does not result in means of evidence, its aim is to clarify the circumstances of the examination, the procedure of the testing and its reliability. But it might lead to evidence as it can be followed by a confession. According to István Krispán, about one third of the accused make a confession after polygraph testing in homicide cases. (Krispán, 2005) In some cases polygraph tests can provide the investigative authorities with material means of evidence, when the location of the corpse can be identified as a result of the test. (Krispán & Pusztai, 2016)

VALIDITY PROBLEMS OF POLYGRAPH TESTS

There have been many validity studies in recent decades all over the world. If we examine the experiments we find some really favorable results for the polygraph, as in, for example, Sándor Bollók's conclusion. He only indicates a rate of error of 0.5 %. This result was reached at the beginning of the 1980s with a card test and participation of 150 high school students. (Bollók, 1987) Another experiment is detailed by Christopher J. Patrick and William G. Jacono. During this experiment forty-eight subjects were examined, twenty-four of whom were psychopaths. The validity of the polygraph examination was established as 73.2% based on this experiment. The reason of the unfavorable result could be that they also examined psychopaths. In case of psychopaths the false positive rate was 62.5%. This means that in 62.5% of all the honest answers were falsely qualified as deceiving. (Patrick-Jacono, 1989)

Regarding the question of validity - with the reservations detailed above - the validity examinations carried out in real cases seem more authentic. The validity of the polygraph is set at maximum 85% by Baskin, Edersheim and Price. (Baskin-Edersheim- Price, 2007) According to Kaye, the validity of the polygraph can be between 83% and 97%. (Kaye, 1987) In the United States an experiment was carried out with 2000 subjects. According to the results, false positive results were established eighty-five times. (National Research Council, 2003) This amounts to 4.25%. A Canadian Journal determines this rate between 12% and 23%. (Meijer-Verschuere-Merckelbach-Crombez, 2008) According to John J. Furedy and Ronald J. Heslegrave, the above rate is between 64% and 90%. (Furedy-Heslegrave, 1988) According to István Szíjártó, the validity data mentioned in different journal articles is between 70% and 90%. (Szíjártó) However, some authors publish higher numbers. (Budaházi, 2015)

Among the methods suitable for instrumental control of testimonies only polygraph tests are accredited in Hungary. The National Accreditation Authority (henceforth referred to as NAA) accredited the polygraph testing of the Hungarian Institute for Forensic Sciences in 2016. By issuing the accreditation certificate, the NAA guarantees the permanent quality of the process of polygraph testing and attests

that the procedure conforms to the standards. Prior to accreditation polygraph testing consultants participated in an accreditation training organized by the American Polygraph Association (henceforth referred to as APA) (Gárdonyi, 2019) As a result of the training the examination methodology of consultants employed by state authorities changed in several respects. Hungarian consultants adopted the validated test types used in the US. Furthermore, the numerical evaluation system became part of polygraph testing, thus increasing the objectivity of the polygraph method.

Thanks to APA training, the methodology of polygraph testing at state institutions developed during the last few years but polygraph examiners working for private enterprises did not take part in this training and they are not accredited by the NAA. Polygraph tests can be performed by anyone - special qualifications are not required, so that reliability of the examination gives reason for concern if the examiner who performs the examination in a criminal case is not employed by a state institution. The investigative authority primarily requests consultants employed by state institutions to perform polygraph tests but the accused or sometimes the witness usually request experts of non-state institutions to perform the test in order to be able to present the result of a test to the acting authority in a criminal case. It may cause problems if the testing does not meet the professional requirements as it makes the control testing performed by a state institution difficult or even impossible. According to Gergely Gárdonyi, polygraph examiners working for private companies 'are not independent financially from their customers and thus their impartiality is questionable', which gives reason to concern. In those cases when polygraph examiners are not appointed by the investigative authority the accused is free to neglect the unfavourable result and may fail to present it to the authorities. In this case it is important that the consultant of the state institution performing polygraph tests should be aware that the person was tested earlier.

In the event of polygraph testing in non-criminal cases it is doubtful whether the examination has real stakes, and an environment similar to criminal cases when the accused is threatened by long sentences in prison or penitentiary can be created. It is the responsibility of consultants that they can undertake the testing only if polygraph can work, i.e. fear responses can be triggered in the tested person. Fear responses can be generated, for example, if someone is afraid that he cannot get the desired job and denies something in his/her past that is incompatible with a favourable result.

Both in criminal and non-criminal cases the examiner or any other person must not exercise influence on the subject prior to testing as any false suggestive data can be recorded in the memory and alter the result. (Nyitrai, 2017) The assessment of the tested person is also an important requirement as it must be decided whether he/she is physically and mentally suitable for the examination. Consultants must be aware of several circumstances that might influence and distort the result.

INSTRUMENTAL CONTROL OF TESTIMONIES BESIDES POLYGRAPH

Research on the digitalization of handwriting has been going on since 1987 at the Institute of Graphology. During the graphometrical examination developed at the Institute questions are asked – similarly to polygraph tests – and the yes – no answers have to be given in writing. (Agárdi, 2018) In the last few decades computerized graphometrical examinations have been used in criminal cases but much less frequently than polygraph tests. The method is used only in Hungary and its validation took place only in Hungary. (Agárdi et al., 2009) While the computerized graphometrical examination is a kind of computer-based handwriting examination, graphometer examines the conscious and subconscious functions of the brain by using software. The first graphometer was constructed when polygraph tests

were known and widespread in Hungary. The instrument was developed by László Szidnai, a forensic graphology consultant and András Kiss, an IT engineer in 1994. (Farkas, 2005) The instrument has been used in forensic examinations since 2000. This method, similarly to computerized graphometrical examination, is not used abroad and has not been validated yet. LVA was developed by an Israeli company in 1997. (ANIMA POLYGRAPH, 2020) LVA is more widespread and better known abroad than in Hungary, where it is mainly used in the business world but a few years ago the Hungarian National Protective Service also started using it. Validation attempts have been made both in Hungary (Kis & Takács, 2018) and abroad, but the method has not been validated as thoroughly as polygraph testing.

Beside polygraph examinations these three methods are available in Hungary and all of them have been used in criminal cases. Their use is much less frequent than that of polygraphs, which is due the fact that their reliability is mainly dependent on the experience of the consultant, there are no objective data available and they are less known and not widespread methods. In the case of their application the authorities acting in criminal cases must evaluate the results of the examination with reservations and must not believe in the infallibility of the method. It does not mean that there are no alternatives to polygraph testing but further validation procedures are needed to prove their reliability.

CONCLUSION

Polygraph testing, the best known method of instrumental testimony control, has advantage over other methods since in the last few decades it has been validated several times and has been used in several millions of examinations. It is also the advantage of polygraph testing that it is used all over the world, which cannot be said about other methods.

Polygraph testing is not infallible, errors may happen, but the chance of mistakes is slight and authorities have learnt to use this method based on experiences of past decades. In the case of other instruments, the long experience of authorities is missing and there is no abundance of available objective testing data so it takes some time for them to be widespread. Although IV SCP theoretically allows the usage of methods other than polygraph tests authorities have not begun using other instruments in large numbers of cases. This does not seem likely to change in the near future. The instrumental control of testimonies has a role in evidentiary procedures but the memorandum containing the findings of the instrumental control of testimonies is not classified as means of evidence, it is a file containing data that disproves or supports a given testimony.

Instrumental control of testimonies is possible in cases other than criminal ones. They are primarily aptitude tests but the application of an instrument may be useful in other areas. In these cases lie detection is typically carried out by a polygraph but there are some reasons for concern because the examination performed by a non-state institute may not meet professional requirements. Although the stakes are not as high as in criminal cases, when the tested person is threatened by a jail sentence, the loss of a workplace or the failure of a job application it may have serious consequences, so it seems justified to regulate who and under what conditions is be eligible for using the polygraph and establishing the results of the examination.

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