



*Report from the National Conference on the Instrumental
and Non-Instrumental Methods of Detection of Deception –
Current Legal Framework and the State of the Science
– Rzeszów, 10–11 June 2016*

A conference on the methods of detection of deception (including polygraph) was held on 10 and 11 June 2016 at the University of Law and Public Administration (WSPiA) in Rzeszów, Poland. It was combined with the meeting of the Polish Society for Polygraph Examinations (PTBP). The scientific event was organised under the auspices of the Voivode of Podkarpackie, Ewa Lenart, and Rector of WSPiA, Professor Jerzy Pośluszny.

The conference gathered both practitioners and representatives of academia interested in lie detection. The participants were presented with interesting speeches on cross-disciplinary issues.

Professor Czesław Kłak (Director of the College of Law at WSPiA) gave a lecture on polygraph examinations in the light of *nemo se ipsum accusare tenetur* principle (no-one shall be compelled in any criminal case to be a witness against himself). He concluded, according to judicature, that a suspect, accused or a witness has a duty to appear before the polygraph expert witness; however he has right to refuse to take a polygraph test. The discussion extended to the European Court of Human Rights judgment of 6 December 2007, case of Bragadireanu v. Romania (application 22088/04). The Court pronounced that there had been no violation of the right to

a fair trial due to the fact that the complainant had taken the polygraph test without being represented by a lawyer during the examination.

Professor Katarzyna Kaczmarczyk-Kłak (WSPiA lecturer) discussed the consequences of the Polish Constitutional Tribunal judicature for the organisation of polygraph examinations in personnel screening procedures in public institutions.

A judge of the District Court in Rzeszów, Grzegorz Maciejowski, emphasised the need for additional training for judges and prosecutors, as many of them still underestimate and do not understand the substance of polygraph examination. This is one of the reasons behind the poor number of polygraph expert opinions in criminal proceedings despite the fact that polygraph is legally admissible.

Major Jarosław Wójtowicz, representing the Prison Service, suggested the implementation of polygraph examinations in the procedures of criminological prediction and assessing the level of danger posed by individuals. Verification of prisoner behaviour in custody and during leaves would be helpful in predicting their future conduct which might put the public at risk.

Marcin Gołaszewski (PTBP President) presented a paper on hearing a polygraph expert witness in jurisdictional proceedings – frequently asked questions and correct answers. The repeated questions pertain for instance to the influence of examinee's stress management capability, alcoholism, and passage of time on the process of examination and tests results. It is therefore worth clarifying that examinee's nervousness should not affect a properly-conducted test that includes an appropriate pretest interview and an acquaintance test. Alcohol can be a problem if the person was intoxicated during the incident to a degree impairing memory of the event. Polygraphers should not test people unless they can provide sufficient details about the event to indicate that they are amenable to testing. Nor is passage of time a major problem unless the test relies on minor aspects of the events that may be easily forgotten or confused. Every test should focus on aspects that are clearly memorable.

In addition, the lecturer explained the difference between the mean accuracy of a polygraph technique and the statistical significance (probability of error) of a test result (numerical score). Probability indicates just the likelihood that the score belongs to scores obtained from deceptive or truthful subjects. This simply reflects the strength of the results and not the accuracy of the decision. Empirically obtained accuracy of the technique is based on scientific studies of verified cases. It is the actual accuracy of the decision regarding the test result, e.g. 9.6% error for the You-Phase test scored using ESS (e.g. not 1% error of score classification when the grand total is -8).

Agnieszka Leszczyńska (PTBP Vice President) described the three main techniques of detection of deception based on human detection, direct recording of brain activity, and observation of physiological reactions. Human detection has been practiced throughout human history. It consists in careful observation of the interlocutor, whose appearance, physiology, and behaviour are different when lying than while telling the truth. We are able to distinguish four communication codes between people: body language, facial expressions, tone of voice, and the verbal code that are helpful in the art of detection of deception.

Our brain is directly responsible for lying. Therefore, all the methods which enable brain activity observation may be considered potential “lie detectors”. Some of these techniques rely on the recording of electrical brain activity (electroencephalography, magnetoencephalography). Other, indirect methods, are based on measuring the changes in blood flow in the areas of brain, where increased neuronal activity takes place (positron emission tomography, functional magnetic resonance). When people lie, there is an increased activation of the cerebral cortex, especially prefrontal cortex, anterior cingulate cortex, and parietal cortex.

The category of psychophysiological techniques includes thermal vision, voice analysis, oculograph, and polygraph. The lecturer underlined that such examinations should be conducted by qualified experts.

Jakub Kryłowski (University of Warsaw) presented the idea of applying oculography in research on linguistic preferences. He discussed the concept of cognitive inhibition. Regarding the potential implications of determining linguistic preferences in detection of deception – the method might be helpful for example in checking whether a person (an illegal immigrant or espionage suspect) is concealing the knowledge of a specific language. It is also worth to be aware that lying in a non-native language may result in less significant physiological responses.

The reported event was a great opportunity to exchange experiences from laboratories and the field. It was the third national conference organised in cooperation with Polish Society for Polygraph Examinations.

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