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A Half-Century of Experiences with the Polygraph



Jan Widacki

I obtained my first expert knowledge of polygraph from a course book of criminalistics by Paweł Horoszowski published Poland in 1958. The author provided his descriptions of the polygraph and examinations with an ideological commentary (among other things like this: "lie-detector is an imperialistic tool of torture").

Having returned from the US, where he held a scholarship from Ford Foundation and purchased a Stoelting polygraph device, Horoszowski changed his opinion and now considered polygraph examinations useful for criminal cases, and began to perform polygraph examinations in criminal procedures himself.

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Beginning with the 1970s, polygraphs began to be used in Poland for examining people suspected of committing ordinary crimes, mostly homicide. Reid Control Question Technique was used for that purpose, as described in a book by Reid and Inbau (*Truth and Deception: The Polygraph ("Lie Detector") Technique,* Williams and Wilkins, 1966).

In 1976 I began my experiments as a junior researcher at the Jagiellonian University using a LaFayette (model 76058). At the time I co-authored, with Frank Horvath, a work entitled "An experimental investigation of the relative validity and utility of the polygraph technique and three other common methods of criminal investigation" published in *Journal of Forensic Sciences* and in *Polygraph*.

Since 1977 I used polygraph for criminal, mostly murder, cases, initially only using Reid technique, which was used by Polish polygraphers working on criminal cases.

The evaluation of the curves was only performed qualitatively. The results of the examinations were delivered to the examining officers together with comments, and played an auxiliary role in the investigations. Only around 10% of results of examinations later reached the court as evidence. Apart from the analysis of the reactions reflected by polygraph curves, attention was paid to the behaviour of the subject during the examination, attempts at interfering with the results, and the subject's statements before and after the test. Assessments covered the strength of reaction to Question 3 ("Do you know who killed?") compared to Question 5 ("Did you kill?"). These grounds were used for drawing conclusions for the investigating officers. The result of the examination was more of a suggestion for the people in charge of investigation than evidence for the court.

Following a suggestion of Gordon Barland, with whom I exchanged letters and who visited Poland twice, beginning with the late 1970s I began to use numerical assessments of the subjects' reactions, employing a 7-point scale, ranging from +3 to -3, and I also began to apply Backster's technique.

Using numerical assessment, I only applied strict quantitative criteria, according to which the result of examination qualified the subject into the group of deceptive (DI) or non-deceptive (NDI) individuals, or made us consider the examination as inconclusive (INC). Interpretation of the subject's behaviour, assessment of reactions to individual questions, etc. moved to a more distant plane, and was of clearly

auxiliary significance, and that only if the quantitative result was on the DI/INC or NDI/INC border.

The examination was not as much focused on suggestions for the investigating officers as on evidential purposes.

The opinion from the examination contained the formula "the subject reacts to the critical questions of the tests in a way usual for the people who answer such questions deceptively, that is lie or withhold the information they have" or "the subject reacts to the critical questions of the tests in a way usual for the people who answer such questions honestly". In the case of subjects who could not be clearly assigned to the DI or NDI group, the opinion read: "the result of the examination does not allow an unambiguous decision whether the subject reacts to critical questions like DI or NDI individuals".

The result of a polygraph examination concluded with such an opinion only provided circumstantial evidence and was never treated as direct evidence.

The question how to interpret the phrase "reacts (...) in a way usual for the people who" was answered with a reference to the diagnostic value of a polygraph examination, namely that "this is the reaction of around 90% of subjects who answer honestly" or "this is the reaction of around 90% of subjects who answer deceptively". Thus interpreted, the results of the examination always required confrontation with other evidence collected for the case.

The historical breakthrough in the practice of polygraph examinations came early in the 1990s with the emergence of computer polygraphs that practically succeeded traditional analogue polygraph machines in the space of a few years.

As much as in the 1970s and 1980s polygraph examinations were used in Poland mostly in criminal cases, today such examinations are but a few percent of all the procedures. A great majority of examinations is performed for pre-employment and screening purposes.

From the time of the breakdown of the USSR, more polygraph examinations have been conducted in Russia, Ukraine, Belarus, Kazakhstan, other Asian republics of the former USSR, and China than in the US, Latin America, and Europe. These examinations are performed both for the organs of the states, and in private business for pre-employment and screening purposes. There is much to suggest that such examinations are abused, and also their quality raises doubts.

Despite such a significant increase in the count of polygraph examinations in the world, the number of experimental studies in the field does not grow, and judging by the number of publications in scientific journals, it can even be dropping. There is also a shortage of methodical analysis of the praxis, which is a reason for concern that the practice of polygraph examinations has escaped the control of science and academic centres. This, unfortunately, sets polygraph examinations apart from most forensic sciences in whose case the control exerted by academic centres over practice is clear, and scientific and research centres provide practitioners with ever more perfect tools.

Another reason for anxiety is that the professional associations that are generally rich, to mention the American Polygraph Association, only earmark very little funds, if anything at all, to scientific research. The lack of scientific cooperation between such associations and societies of psychologists is impossible to understand, and even more so are their mutual antagonisms.