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ANDRZEJ FRYCZ MODRZEWSKI KRAKOW UNIVERSITY

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European Polygraph is an international journal devoted to the publication of original investigations, observations, scholarly inquiries, and book reviews on the subject of polygraph examinations. These include jurisprudence, forensic sciences, psychology, forensic psychology, psychophysiology, psychopathology, and other aspects of polygraph examinations.

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Donald Krapohl: new APA President 2022–23



Donald Krapohl with a group of polygraphers from Poland, Orlando FL, September 2nd, 2022

At the 56th APA Annual Seminar (Orlando, Florida) Donald Krapohl embraced the post of APA President for 2022–23, which he already had held in 2006–07. The new president is an experienced polygraph examiner with a wealth of academic publications to his name. President Krapohl holds an MA from the Catholic

University of America, and his extensive professional career includes serving in the CIA (1985–2006) and the position of Deputy Director of the Capital Center of Credibility Assessment (former: Department of Defence Polygraph Institute). He is very well known among Polish polygraphers.

The Editors of the European Polygraph wholeheartedly congratulate the new APA President and wish him success in running the Association.

Articles

Polygraph Testing and Social Intolerance: A Warning to Examiners Outside of the United States

Frank Horvath, Ph.D. and Robert Peters*

Abstract

The use of polygraph testing in the applicant screening process for law enforcement positions is widely accepted in the United States and elsewhere. Generally, that testing includes questions related to past behaviors such as involvement in criminal activity, use of illegal drugs, falsified background information, employment misconduct and so forth. More recently some have advocated that such testing ought to include questions related to ‘social intolerance.’ In this paper we argue that testing for such ‘intolerance’ is highly objectionable and is likely to encourage efforts to prohibit polygraph testing, especially so outside of the United States.

Key words: Screening, Social Intolerance

* The authors each have over 50 years of experience in the polygraph profession. Both witnessed the efforts of organized labor, the ACLU, and other similar groups during the 1970s – 1980s to eliminate all polygraph screening exams in the United States that eventually resulted in EPPA. Both authors actively participated in trying to forestall the passage of EPPA and they believe that the proposed testing for social intolerance, if implemented as advanced, represents the greatest threat to the restriction of polygraph testing since EPPA. Corresponding author, Robert Peters, rpeters870@aol.com.

In August and September of 2021, the American Polygraph Association (APA) welcomed new members; 29 of them were residents of countries outside the United States; 31 resided in the U.S. It is likely that this growth in membership in the APA reflects the change in the polygraph examiner community in the past two decades or so; a dramatic growth in the number of examiners from outside the U.S. in comparison to those in that country, known as the home of polygraph testing*.

For those new to polygraph testing, particularly those outside of the U.S., we call your attention to an advisement, maybe something more serious than that, a warning of danger, a real and serious threat. This is necessary because of an article that appeared in a recent APA publication (Nelson & Handler, 2020). This article was authored by two persons who serve on the APA's Board of Directors. Because of their position it is possible, maybe even likely, that what they wrote was approved by, or if not that, supported by the APA Board itself. In the article in question the authors advocated the use of polygraph testing to screen applicants for law enforcement positions with respect to issues related to "social intolerance," defined by them as "an unwillingness or refusal to accept or respect the beliefs or opinions that are different than one's own." (Nelson, Handler, 2020, 70).

We wrote a response to the article in which we opined that the idea of testing for social intolerance was not a welcome one and, in fact, was likely to be dangerous, particularly for those who practice as examiners outside of the U.S (Peters, Horvath, 2021). The nature of that testing would be, or certainly would appear to be, so invasive of applicants' personal thoughts and beliefs, as opposed to their behavior, that it would frighten those who are inclined to want polygraph testing to be legally prohibited as well as those who might take a more moderate view.

The history of polygraph testing in the U.S., particularly in the years when the U.S. Congress considered and ultimately passed into law the Employee Polygraph Protection Act (EPPA**), shows us that in addition to disputing the validity of

* At the present time about 26% of all active members of the APA reside outside of the United States. However, because there are many persons who have not yet paid their current membership dues the member count will likely be different when the "grace" period has ended

** EPPA was legislation passed by the U.S. Congress in 1988. It essentially prohibited all polygraph testing of employees by private employers with a few notable exceptions, such as those in certain security-related businesses. As a result of EPPA many private polygraph examiners in the U.S. lost their business regarding employment-related testing. In addition, membership in the APA was reduced by about 50% (Horvath, 2020).

polygraph testing, opponents argue against polygraph testing on a more subjective level. They contend that more disturbing than the technical and scientific pitfalls of polygraph testing it is the compromise of human dignity inherent in the polygraph process that is an equal if not more significant concern. American labor unions claim that passage of EPPA is one of organized labor's greatest accomplishments because of the protection of personal privacy that the law provides.

We believe that delving into a person's beliefs and thoughts by testing for "social intolerance" would generate even greater, and perhaps justified, opposition to polygraph testing. Our position is that the use of such testing would not only lead to greater opposition to polygraph screening examinations, it would, moreover, also prove to be a practical nightmare for consumers of the polygraph results. What, for instance, would it mean to the consumer to learn that an applicant "failed" a question about "ethnic intolerance", "ageism", "sexism" or any other issues said to be an indicator of social intolerance. Is it likely the consumer would presume that the "failure" would be predictive of unwanted or undesirable on-the-job-behaviors? We don't think so. The issue would simply confound the screening process and would be unlikely to serve consumers' real needs.

Perhaps it is the lack of experience that led the original proponents of this idea to suggest it. They—and presumably many of the readers—were not active examiners in the United States when the APA and the examiner community in general was so devastated by the passage of EPPA, the federal legislation passed in 1988. But we were active then and both of us were involved in various ways in trying to defeat the passage of that legislation and in seeking the help of employers and others to support the polygraph examiner community. Each of us saw firsthand how opponents of polygraph testing lied about what was their evidence against polygraph testing and how they distorted what—albeit little—was actually known about that testing. But politically the opponents succeeded and while their actions did, as some in the examiner community maintain, reduce the abuses in practice by some examiners who were not engaged in ethical and legitimate testing practices, it also hurt other examiners who were legitimate and ethical. EPPA seriously affected the APA and the polygraph examiner community in the U.S. (Horvath, 2020). And, our experience tells us that the pursuit of polygraph testing for issues related to "social intolerance" is likely to lead to a similar outcome, particularly in those countries that at this time have little or no legal restrictions on applicant screening. As we have stated before, we hope we are wrong, but our personal experience tells us otherwise. Polygraph screening

of police applicants, as well as other sensitive positions, is, when properly done, a benefit to employers; when it is not done properly—as we think would be the case for social intolerance testing—is something that most persons would find objectionable.

In our original response to the social intolerance article, we called for the APA Board to take a decision on the issue—pro or con—and to let the examiner community know what that position was. The Board was silent. At that point we took it upon ourselves to poll the Board in an attempt to determine the individual Board members' view. That is, we wished to determine the view of each member, not the outcome of what a Board vote might be. We sent an identical email message to each Board member and asked them to respond to two issues. First, we asked:

1. Do you favor polygraph testing of public safety applicants on issues of social intolerance, such as religious bigotry, gender bias, age bias, racial bias, etc. as proposed by Nelson and Handler

YES

NO

2. Do you believe polygraph testing on issues such as social intolerance can be done in a way consistent with APA standards and with techniques recognized by the APA as being validated?

YES

NO

Please return this message with your votes indicated on the two items requested by October 15 to: rpeters870@aol.com

We asked for a response from each member within a fixed and reasonable time (15 days) and we promised anonymity regardless of what was told to us.

We heard back from two Board members. One of them seemed to be open to the idea of such testing and thought it would be advisable for the collection of evidence regarding its feasibility before taking a position. The other response told us what we already knew, that the Board had not taken a position and that authors' views in published material are not necessarily those held by the Board or its members. Both responses were silent on the fact that the authors of the article in question were two active APA Board members who, unfortunately, did not indicate in their article whether or not the Board approved of their proposal. While we understand that

published material represents the authors' views, in this instance such a sweeping proposal—without comment from the Board— might be easily misunderstood as an “officially approved” document.

Since surveying the Board members, we note that one other person, a Past President of the APA, wrote a letter to the Editor in which he took a position similar to ours. He indicated that practical difficulties in testing for social tolerance would be a real concern. As he stated: “Intolerance, like beauty and intelligence, is often in the eye of the beholder. I would expect a large increase in false positive and false negative outcomes” (Webb, 2021). In addition, he pointed out that in his view the APA should make a “declarative statement about this type of testing,” presumably one that makes clear what the Board’s position is.

Regardless of APA Board’s position, we urge examiners, especially those who work outside of the United States, to resist any proposal to include matters related to “social intolerance” in any polygraph examination. Such testing would, we believe, generate opposition that is likely to ravage the polygraph profession, adversely impact the validity of testing, and confuse the consumer of the polygraph testing results.

Given the failure of the APA to state its position on testing for “social intolerance” we believe it is important for those who work in countries outside of the U.S., that such testing ought not to be practiced. It will be very likely to provide an even stronger basis for those who oppose polygraph testing to convince others that such testing is a real invasion of privacy. And, in our view, that position might be entirely justified. It does seem that inquiries into matters of “social intolerance” would unnecessarily invade the personal thoughts and beliefs of job applicants — whether for law enforcement or other sensitive positions.

Our general position on this issue notwithstanding, we believe that if police administrators find such testing to be acceptable and wish to go forward, examiners, we think, should proceed with great caution. If the testing must be done, we would advocate that it be done only in concert between an examiner and another professional who is qualified to assess whatever an applicant may reveal regarding “social intolerance”. This might be similar to what is now being done in the testing of sex offenders. It is that independent evaluation by a qualified professional that might make inquiries regarding “social intolerance” tolerable.

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Should Blind Evaluation of Polygraph Charts Be a Mandatory Procedure in Evidentiary Examinations?

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Abstract

The article considers the advantages of blind interpretation of polygraph charts in the context of subjectivity in polygraph examinations. The purpose of this article is to provoke a discussion on the inclusion of blind scoring in evidentiary examinations as a standard procedure. Resorting to such a method should curb the impact of cognitive bias on interpreting test data as it has been proved empirically that information on the case facts and the examinee, provided to the examiner before the examination, may influence the subsequent interpretation of the charts.

Key words: polygraph, charts, subjectivity, blind evaluation, evidentiary examinations

There are three situations in which polygraph experts analyse polygraph charts when it comes to familiarity with the subject and object of the examinations. The first and basic occurs when the expert runs the examination in person and analyses the data obtained later. Such an expert knows the details of the case both from the information shared by the party commissioning the examination and materials delivered, and from the interaction with the examinee (subject of the examination). The other two cases involve commissioning examination of charts to additional experts, in which case they are either given access to the same information as the examining expert had, including information on the course of the examination itself, or else the evaluating experts are absolutely independent in doing their task and have no access to any data other than the charts being the record of physiological reactions. This last case is known as “blind interpretation”. Such a procedure eliminates all the subjective factors connected to the circumstances of the case that the expert opinion to be delivered concerns. It limits subjectivism solely to the polygraph examiner’s personal preferences concerning interpretation of data wherever a certain leeway is present.

Following what M. Orne noticed, the result of a polygraph examination may be influenced in actual conditions by other evidence gathered for the case and also by the examiner’s conviction about the guilt or innocence of the subject. For a method to be fully accurate from the scientific point of view, it is necessary to separate test results from other aspects of a given case, however this cannot be achieved in practice (Orne, 1973: 177). Orne quoted data from P. Berch’s experiment comparing diagnoses of polygraph examiners with the opinions from a panel of three legal experts working on the body of evidence presented to the court and also on additional information that could not have been transformed into formally permissible evidence in the cases. Wherever the three experts were unanimous, the assessments made by the polygraphers were aligned with them in 92.4% of cases. When one of the lawyers expressed a dissenting opinion, the alignment between the assessments of the polygraphers and the panel dropped down to 74.6% (Berch 1969: 399–403). Orne presented two hypotheses that could explain the shift. The first claims that these were still the results of polygraph examinations that were more accurate than the views of the lawyers disputing the ambiguous body of evidence, while the other presented the option that, with the full unanimity in the panel of experts, the information that the lawyers used could equally well make a significant influence on the behaviour of the polygraph examiner towards the subject, the way the subject reacted, and the examiner’s final judgement (Orne 1973: 178–179).

Experts examine the charts for the diagnostic features. Their theoretical knowledge and practical experience lets them discriminate whether a given feature is highly likely, and what its identification significance is. They also describe the degree of accuracy of the diagnosis they offer, whether in descriptive or statistical terms. The space for subjectivism in polygraph examinations exists since the changes of physiological reactions of the subject must not only be measured but also subsequently interpreted according to a set of criteria approved for the given analytical method. Depending on the method, the expert has a greater or smaller leeway in the interpretation whenever they are not bound with objective and accurate criteria.

There are factors that influence the cognitive processes of every person issuing opinions. These include the emotional condition, preconceptions concerning the subject of the analysis, and the environment in which the expert functions, especially pressure on behalf of the party commissioning the opinion. The plethora of information to be processed makes the examiner's mind apply simplified rules of cognition that may be helpful for making the decisions but loading the process with the risk of cognitive errors.

It has been proved empirically that the information on the person subjected to polygraph examinations that an expert learns before analysing the data recorded by the polygraph influences the subsequent interpretation of the charts (Elaad, Ginton, Ben-Shakhar 1994: 280-281; Elaad, Ginton, Ben-Shakhar, 1998; Shurany, Matte, Stein, 2009: 133-139; Krapohl, Dutton, 2018: 99). Independent of the professional experience they have, experts are biased by the information they received earlier that create the preconception of a guilty or innocent individual. This has impact on the numerical assessments of the records of changes in physiological reactions after relevant questions but, fortunately, only in the cases when the differences in the reactions compared are far from obvious, call for complicated analyses, and the final result of the test oscillates around the decision-making threshold. Such cases are not dominant in real conditions. However, unequivocal data from the examinations leaves no room for free interpretation to the expert polygrapher, and therefore not do they offer an option to confirm the hypothesis resulting from the earlier expectations. It must also be emphasised that the phenomenon of becoming influenced by the information obtained before making the expertise described here does not manifest itself particularly among polygraphers. It is also present in other forensic examinations, notably the ones that are generally believed to be more valid, to mention fingerprinting (Dror, Charlton, Pèron, 2006: 74-78).

A. Ginton's conclusions demonstrate that the consequences of previously made expectations in actual cases are lower than in the claims made by opponents of polygraph examinations (Ginton 2019). He further recognised that for practical purposes it is most important to know how many of such "inconclusive" tests may incorrectly turn into conclusive under the influence of the examiner's prior expectations. For that he assumed the level of inconclusive results at 20%, a level that is correct, as for tests recommended to various types of examinations it is the maximum permissible level set in the current validation requirements, while the average share of such results was estimated from a meta-analysis at 12.7% (Gougler, Nelson, Handler, Krapohl, Shaw, Bierman 2011). Ginton estimated that the error of confirmation realistically concerns around 3% of all the practically conducted examinations, and moreover not all of those result in inaccurate identification, as some of the prior expectations are aligned with the status quo, and they do not follow just one direction, whether inculpatory or exculpatory the subject from suspicions.

In an experiment conducted by Holmes in the 1950s, making polygraph examiners familiar with the cases from which the charts they assessed came resulted in a small increase of their diagnosing accuracy: by 8% (Holmes 1957: 67–70). The correlation was also experimentally tested by D. Wicklander and F. Hunter, who had six mutually independent polygraph experts analysing 20 sets of polygraph charts (Reid technique) (Reid, Inbau, 1977) at least two months apart. In the first round, they only shortly presented the issue that a given test concerned (e.g. stealing money from an office safe). Yet, they expanded the scope of information shared before the second interpretation, adding a short historical context of the event, basic background data on the subject together with their verbal and non-verbal behaviours, and the list of relevant test questions. While the average rate of correct diagnoses in the first their first analysis of data amounted to 88.33% [0.7–0.95], sharing additional information with the polygraphers made their opinions slightly more accurate, as the rate of correct verdicts reached 92.5% [0.8–1.0]. Four in six examiners improved the results, one remained at the previous level, and one returned poorer results then making a blind interpretation. Moreover, the number of inconclusive results dropped by half (Wicklander, Hunter, 1975).

Various studies on the accuracy of comparison questions tests in actual cases (that is outside an experimental laboratory) suggest that experts who conduct the examinations in person may obtain better results than the ones who only perform blind interpretation of polygraph charts. As much as both the groups identified deceptive individuals with nearly identical accuracy rates, they were more accurate in identifying truthful people (see Tab. 1 and Tab. 2).

Table 1. Results of selected practical studies concerning accuracy of CQT tests: tests assessed by independent examiners

Study	Deceptive (%)				Truthful (%)			
	n	Correct	Inaccurate	Inconclusive	n	Correct	Inaccurate	Inconclusive
Honts (1996: 309–324)	7	100	0	0	6	83	0	17
Honts & Raskin (1988: 56-61)	12	92	0	8	13	62	15	23
Patrick & Iacono (1991: 229–238)	52	92	2	6	37	30	24	46
Raskin <i>et al.</i> (1988)	37	73	0	27	26	61	8	31
<i>Mean</i>	27	89	1	10	82	59	12	29
<i>Average percentage</i>		98	2	-		83	17	-

Table 2. Results of selected practical studies concerning accuracy of CQT tests: tests assessed by the polygraphers who conducted the original examinations

Study	Deceptive (percentage correct)	Truthful (percentage correct)
Horvath (1977: 127–136)	100%	100%
Honts & Raskin (1988: 56-61)	92%	100%
Raskin <i>et al.</i> (1988)	95%	96%
Patrick & Iacono (1991: 229–238)	100%	90%
Honts (1996: 309–324)	94%	100%
<i>Average</i>	98%	97%

In the early 1970s F. Horvath and J. Reid selected 40 sets of polygraph charts recorded in Reid technique (20 verified as coming from guilty and the remaining 20 from innocent subjects) for an experiment and delivered them for evaluation to polygraphers with various levels of professional experience. Performing the selection, they rejected those charts that were so evident that even a layman would notice differences in reactions to critical and control questions, and also ones impossible to interpret even by a trained polygrapher. The evaluators were only given general information about the subjects of the individual tests and only granted a single working day to perform their task. Out of the seven polygraphers who had had at least a year's experience in practical diagnosing, accuracy was at 91.4%, and the range of correct assessments at 12.5% [0.85-97.5]. The remaining three polygraphers who were only taking the first steps on their career paths offered accuracy level of 79.1% [0.70–0.90]. The total rate of correct diagnoses was estimated at

87.5%, and the divergence between polygraphers' accurate diagnoses – at 27.5% (Horvath, Reid 1971: 276–281). More experienced individuals returned better results. Moreover, identification of innocent individuals was more accurate at 9.5% of false positive results, as compared to 15% of false negative results. What Horvath and Reid primarily proved was that experts in polygraph examinations are capable of attaining accurate and reliable results only using the recorded polygraph charts without knowledge of the details of the case and without personal interaction with the subject. However, they also believed that the experts who conduct the testing in person and are fully aware of the case are in a better position. They recognised additional behavioural hints as something that favours more accurate diagnoses when presented in combination with the recorded physiological data. It must be noted that they formed their view quite arbitrarily. Sometimes the behaviour of the subject helps in accurate assessment of veracity of their response, yet at times it may also be a hindrance (see: Othello's error).

It would also be impossible not to note that majority of studies examining accuracy of tests and consistency of the assessments made by polygraph experts conducted until the 1970s concerned Reid's control questions, peak of tension (POT), and relevant and irrelevant (R/I) techniques. Moreover, they were evaluated according to the qualitative method. In turn, the numerical method only entered the early tests phase, and would only accompany Baxter's technique (on a 7-point scale). The few who tried to apply a partially objectivised numerical method at the time included J. Kubis (Kubis 1962; quoted after: Matte 1996: 45–46) and G. Barland with D. Raskin (Barland, Raskin 1971: 275). More contemporary scientific studies concerning the consistency of polygrapher assessments were conducted to validate various techniques and, unlike the early attempts, they in fact only included numerical methods. Apart from the Empirical Assessment System, those were no studies focused on the manners of interpreting test data but standardised tests. Yet, due to the existence of multiple scientifically approved systems for evaluating polygraph charts, various studies used various systems. That is why the available data is connected to specific types of tests, with the tests of fundamental significance here being those of the ZCT type: diagnostic, of single-issue or multi-facet nature, and therefore most frequently used as evidence in criminal cases and other official procedures.

Can one make a claim that assessments of polygraph charts performed by the polygraphers who conducted the examination are always, or at least usually, more accurate than blind interpretation? There are counterarguments of theoretical na-

ture and ones resulting from other empirical studies than the ones quoted above. Falling back on the theory, it seems that the lower the number of factors making subjective impact on the polygraphers, the less distorted their assessment should be, in this way offering higher accuracy of decision, and the degree of consistency between various experts. If the reality were different, the subjective circumstances connected primarily to the direct interaction with the subject would, as a rule and beside the data recorded by the polygraph, have positive influence assessment accuracy.

In 2014–18, a research project on Criminal, Ethical, and Legal Problems in Instrumental and Non-Instrumental Methods of Detecting Deception (Polish title: *Instrumentalne i nieinstrumentalne metody detekcji nieszczerości – problemy kryminalistyczne, etyczne i prawne*) was conducted in Poland with participation of the author.⁷ One of the subjects it tackled was subjectivism in polygraph examinations. The project invited 15 professional polygraphers to conduct experimental testing. Of that number, three examined the subjects in person, and the others were given the task to perform blind assessments of the polygraph curves with various methods. The subjects were 39 volunteers selected from among the students of the AFM Kraków University: 13 men and 26 women aged 20–43. The event staged for the experiment consisted of firing three shots at a silhouette of a young woman on a colourful poster at the university's shooting range. It was performed by 15 subjects, that is the "guilty" group, who were later given the task not to admit to perpetrating the act while being examined. To be further motivated they were given a banknote they could retain if they were identified negative (innocent) by the examiner. In turn, the "innocents" (24 people) never visited the shooting range, had no knowledge of what transpired there, and were to provide truthful answers during the examination. They also received pecuniary gratification but were supposed to return it in the case of a false positive identification. (The idea was to make sure that they follow their role in the experiment. Moreover, in real conditions, the suspected innocents also bear the consequences of a possible incorrect expert diagnosis.) (Widacki (ed.) 2018: 65).

Apart from the demonstration test (peak of tension test), the examiners used the same standardised format diagnostic test with comparison questions (the Utah Zone Comparison Test). They interpreted the data that the subjects returned during the test themselves. In turn, the 12 remaining polygraphers, none of whom was

* Decision of the National Center of Sciences No. DEC-2013/11/B/H55/03856

familiar with the case, only performed a blind assessment of the curves received. To evaluate the polygrams (polygraph curves), they were divided into three subgroups, each one applying a different method: the ESS system, Utah, and the global method. Apart from the human assessments by expert polygraphers, the experiment also involved obtaining results from OSS-3 analytical software (algorithms based on Senter's rules and Raskin probability analysis).

The results obtained in the experiment demonstrate that, as far as general accuracy is concerned, the best results were returned by the blind interpretation of the test data performed according to the ESS system (0.85). On the other hand, when it comes to the highest number of correctly identified cases, and not just bare percentages, that method did not excel but was downright inferior to the other ones, as it returned a relatively highest number of inconclusive results (See: Tab. 4).

Table 3. Data concerning the accuracy of test results assessment according to different methods in the Kraków experiment (excluding inconclusive results)

Test data analysis method	Accuracy (percentage, n=39 exams)
ESS – blind scoring	85%
Utah – blind scoring	82%
selected computerised algorithms (OSS-3)	77%
global analysis – blind scoring	74%
ESS – original examiners	74%

Table 4. Share of inconclusive results in the Kraków experiment

Test data analysis method	Inconclusives (each of n=39)	Percentage
ESS – original examiners	5	13%
global analysis – blind scoring	5	13%
ESS – blind scoring	12	31%
Utah – blind scoring	6	15%
selected computerised algorithms (OSS-3)	4	10%

Critics of presentation of the data on the specificity and sensitivity of testing methods with exclusion of inconclusive results argue that such a practice may artificially inflate these parameters. It is, nonetheless, highly justified for practical purposes, as inconclusive results contribute nothing to the case, as they trigger no decisions, as they are not interpreted in favour or against the subject. This

group of results affects the usefulness of the method and not its accuracy. That is why they are as a rule reported separately in the case of polygraph examinations. While investigating the results above, attention is drawn by the approximately three times higher percentage of inconclusive results in the case of experts using the ESS system for blind interpretation of the curves (31%) as compared to the polygraphers who conducted the examinations themselves using the same system (13%), and also to the average number of such results while conducting ZCT tests (9.8%) determined through meta-analysis (Widacki (ed.) 2018: 65). This proves that the “blind scorers” were either overly cautious in their evaluations or they were the ones who analysed the curves obtained from the experiment more correctly, while those who performed the examinations were more motivated to take decisive decisions, in some cases, consciously or not, stretching the results. The calculations presented in Table 3 suggest that the latter hypothesis is more likely, as the experts performing blind interpretation returned a higher percentage of accurate opinions. Their only task was to analyse the curves, and they were not familiar with the context of the test. In turn, the examiners tried to assign specific individuals to the role (guilty or innocent) they played in the experiment.

What seems most important in the case of polygraph examinations is the reduction of incorrect identifications to the minimum, even if they were to mean a slightly higher share of results considered useless due to the lack of conclusive indications. The tests interpreted blindly according to the ESS system also had the highest sensitivity (0.78) and also negative predictive value (that is probability that the subject is truly not the perpetrator of the deed in question as the test result demonstrates; 0.89). In turn, the highest specificity was achieved in the case of computer algorithms (0.91), and the positive predictive value (the probability that the subject is guilty when the results of the test show so) was the highest (0.82) in blind interpretation performed according to the Utah system (see: Tab. 5).

Table 5. Classification of the best methods for analysing test data in Kraków experiment for test sensitivity, specificity, NPV and PPV.

Indicator	Test data analysis method	Value
highest sensitivity	ESS – blind scoring	0.78
highest specificity	selected computerised algorithms (OSS-3)	0.91
highest NPV	ESS – blind scoring	0.89
highest PPV	Utah – blind scoring	0.82

The experts performing blind interpretation according to numerical methods (ESS and Utah) were more accurate than the ones who conducted the examinations themselves (0.85 and 0.82 respectively, compared to 0.74). In each case the results remained slightly below the average accuracy of Utah test as reported by the APA from the meta-analysis of results of various published studies (92.1%–93%) (Gougler *et al.* 2011), a result that should rather be linked to the specific circumstances of this particular experimental setup, as the skills and qualifications of the polygraphers involved did not diverge from the global standards.

The reasons why, unlike in the experiments described earlier, the polygraphers performing the examinations in person were less efficient in delivering accurate diagnosis than those assessing the charts blindly can be various, and start with the relatively small sample, as involving a larger group of polygraphers was unrealistic in Polish conditions. Moreover, the first group felt the pressure of time and expectations to provide categorical decisions. It cannot be ruled out that they followed subjective factors resulting from the direct interaction with the test subjects. Those analysing the curves blindly were detached from all such concerns. Furthermore, it cannot be ruled out that the examiners cope better when their skills of interrogation and detection of deception based on non-verbal hints surpass the average. However, in case of lack of such talents (and the capacity of an average human being to detect deception does not exceed chance (see reviews and meta-analysis by: Bond, DePaulo, 2006; Hartwig, C.F. Bond, 2011; Vrij, 2008) and moreover no human is perfectly resilient to bias) subjective factors may make a negative impact on interpretation of the charts.

Elimination of the subjective circumstances that primarily result from the direct interaction with the subject and the impact of information about that person and the subject of the examination obtained earlier seem therefore beneficial for the analytical process. At the same time it provides arguments in favour of teamwork. The conclusions of G. Barland demonstrate the advantages of such organisation of polygrapher work. While studying accuracy and validity of the tests performed in Baxter technique, Barland realised that, when totalled, the assessments of the evaluators of polygraph curves returned a higher accuracy than the average results for an individual polygraphers (86% and 81.7% correspondingly) (Barland 1972).

Blind interpretation of the charts is useful not only for mutual consultations between polygraphers but is likewise the fundamental element of formalised quality control procedures. For example, T. Shurany *et al.* believe that quality control of polygraph examinations should be conducted in three stages: blind assessment of

the charts followed by learning the details of the case to check whether the test questions were phrased correctly. Then the third stage consisting of the audio and video recording analysis assures that the polygraphers did not infringe standards of running such examinations (Shurany *et al.* 2009: 138).

Examining the delivery of biased opinions, Kassir *et al.* believe the procedure of introducing blind assessment necessary. Moreover, such a procedure must be sufficiently rigorous for the evaluator not to know whose material they have received, and the expert conducting the examination must have no influence on the selection of the controller. It is also necessary to provide training in fundamental psychology encompassing the questions of perception, judgements, and decision making (Kassir, Dror, Kukucka, 2013: 49–50).

Resorting to blind assessment should curb the impact of preconceptions and earlier expectations on interpreting test data. This is currently a routine procedure in the United States and Israel, yet it has not always been so. When asked whether the curves should be made available after an examination in 1950, C.M. Wilson, at the time the chair of the International Society for the Detection of Deception (ISDD), argued that it would only introduce unnecessary confusion, especially if they were presented to an untrained individual. He believed that the curves tell nothing to one who did not conduct the examination himself or herself. That is the reason why he never showed anyone his curves (Wilson 1950; Ansley 1999: 28). However, at the time, the diagnostic criteria were highly imprecise and applied inconsistently. With Wilson's effectively used, how could reliability of polygraph tests be discussed at all? How to counteract professional malpractice and ordinary abuse if no one had an opportunity to control the data the polygraphers used to issue a specific opinion?

It goes without saying that control of the content should be exerted by individuals possessing profound knowledge on polygraph examinations. This causes no problem when there are official quality control procedures and professional bodies nominated to exert such control. Difficulties may set in when such substantive control remains, on the power of law, a competence of bodies that lack such knowledge. For example, in the case of jurisdictional procedures, the task of substantial control of expert witness's opinions resides with the court. However, the reason why the court involves an expert witness is the court's lack of particular knowledge necessary to assess the specific problem, yet at the same time it is the court that must subsequently perform the substantial control of the evidence it has received from the expert witness.

Following upon the above considerations on the advantages of blind interpretation and the risks ensuing from subjectivism in polygraph examinations, it is worthwhile to consider making that blind interpretation an obligatory element of the process of delivering opinions in case of examinations conducted to provide evidence before the court. This would be a burden of practical nature, especially that, as much as in the case of polygrapher teams employed in various institutions, additional evaluators can fairly easily be appointed ad hoc, in the case of providing opinions for the court, it would be necessary to appoint not one but two independent expert witnesses, one of whom would conduct the examination and the other would be given the task of conducting a fully blind interpretation of the data. In the case of diverging opinions, the right to deliver the final decision would remain with the first, being the leading expert responsible for all the procedures conducted. Alternatively, the examination would need repeating or else a team of expert witnesses, members of a recognised specialist institution, could be involved to make the final opinion. I leave the problem open, thus encouraging a creative discussion among polygrapher and legal circles.

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A Survey of the Views of Catholic Safeguarding Coordinators about the Inclusion of the Polygraph in Psychological Risk Assessments of Clerics

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Abstract

This paper reflects the views of Catholic safeguarding coordinators (SCs) with regard to the inclusion of the polygraph in forensic psychological risk assessments that they have commissioned. The contents are derived from feedback forms sought of these instructing parties, relating to fifteen priests referred for assessment by SCs from eight different Catholic dioceses in England. The SCs responded to a post-assessment survey including a range of questions concerning their perceptions of the utility of independent, secularly organised, forensic psychological risk assessments undertaken during the period from January 2019 to December 2021.

Feedback was obtained in relation to twelve of the clerics, with two SCs having left their positions during the period and as such, not available to provide feedback, and one SC not responding to the feedback request. Replies were received from SCs representing seven of the twenty-two Catholic dioceses in England. The overall survey results reflected that a significant majority of respondents positively connoted the value of independent secularly organised forensic psychological risk assessments. However, their expressed views about the polygraph in this context were more varied, thus prompting the authors to produce this separate paper.

Key words: polygraph, psychological assessment, risk, church safeguarding, priest, sex offences

Potential Role of Polygraph

The polygraph was employed as part of the forensic psychological assessment process with the majority of these clerics (nine of the twelve priests) and the survey sent to the SCs referenced one closed question about the polygraph, „Where relevant, did you consider that the inclusion of the polygraph examination added to the comprehensiveness of the assessment?“, offering a choice of „Yes“, „Somewhat“, or „No“. Responses were received from SCs in seven of eight Catholic dioceses contacted.

The cleric psychological report survey sent out to the instructing SCs also provided a section at the end offering an opportunity for a narrative response to the question, „Do you consider that, with future risk assessments, you would likely be more inclined to include the polygraph in the assessment process, and if so, why?“. The authors note that the three respondents for whom the polygraph was not employed also commented on polygraph’s potential usefulness in this section of the feedback form.

Current Study

Of the nine forensic psychological risk assessments of which the polygraph formed a part of the evaluation process, seven respondents reported, „Yes“ ... the inclusion of the polygraph examination added to the comprehensiveness of the report. This equates to 78% of the respondents. Two respondents reported, „No“ ... the polygraph did not add to the comprehensiveness of the psychological report.

The authors note that of the remaining three instructing SCs who did not request the use of the polygraph in their forensic psychological risk assessment, two report-

ed a belief that its absence from the evaluation process likely diminished the comprehensiveness of the final report. The third of these respondents referenced a need to understand more about polygraph testing to make an informed judgement about its possible utility.

The authors note that the broader questions concerning the usefulness of forensic psychological assessments, including responses to questions such as, „Did the report answer the referral questions?“, „Did the report give you new information about the referred cleric?“, „Did you think that the discussion about what caused the cleric’s difficulties was helpful?“, and „Did the report meet your needs?“ etc., are addressed in an article separately submitted for publication.

Safeguarding Coordinators’ Views About Using the Polygraph in

Cleric Risk Assessments:

Negative appraisals of the polygraph’s use were reported in two diocesan safeguarding responses.

First Cleric:

In the first, in the narrative section, the SC indicated that the polygraph had ‘caused significant issues and was a source of complaint by the priest involved’. The SC described that as a result, ‘this led to anger and contributed to this cleric’s disengagement’ with the process and ‘dismissal of the outcome’ of the assessment.

Authors’ Commentary:

Relevantly, the authors note that the polygraph led to further disclosures made by this priest, wherein he acknowledged that over the course of his career in ministry, he had repeatedly and deliberately directed questions to young parishioners eliciting information about their sexual experiences, for the purposes of later using these images to aid within the context of his masturbatory fantasies. Through the assistive aid of the polygraph, coupled with pre- and post- clinical interviews, the cleric acknowledged engaging in this behaviour over time for his own sexual gratification. He further noted, at times, causing distress and embarrassment to those individuals when they divulged this information. However, whilst confirming incitement in prompting these disclosures, this did not result in a criminal prosecution, as the threshold required to press criminal charges was not met; no-

tably, because the cleric described behaving this way with some regularity and as such, asserting an inability to confirm or disconfirm whether he had done so with the specific minors who had made complaints.

The authors would posit that, as this important safeguarding information had been obtained with the assistance of the polygraph, whether it led to complaints, anger, or disengagement expressed by the cleric, this information seemed to have very substantial relevance to decision-making about this priest's continued involvement in ministry. The authors would further suggest that the value of gaining this otherwise undisclosed and unaccepted information considerably exceeded concerns about causing the cleric discomfort in the process. The authors also note that a detailed examination of risk issues during a psychological risk assessment will likely be the key assessment focus and that clarifying these matters through such focal questioning and, where considered appropriate, the use of the polygraph will likely produce a degree of distress. This will particularly be the case where important disclosures and areas of concern are otherwise being concealed by the priest from the Church and safeguarding body and will ultimately impact on the perceived suitability of the cleric to remain in ministry.

From the authors' perspectives, the relevance of the priest's self-report of so frequently behaving in this self-serving, sexually gratifying manner that he could not confirm who he engaged in this behaviour with, would have critical relevance to his suitability as a priest in ministry now and in the future. Notwithstanding, the authors appreciate that safeguarding offices have a responsibility to acquire information of relevance to assessing risk in each case, employing strategies that may, at times, be viewed as uncomfortable for the priest to engage in, and they may likely feel a responsibility to explain why certain methods, that may feel more intrusive, are employed. This might better ensure the maintenance of successful, cooperative engagement between safeguarding and the cleric in working with them in the future, taking account of what is generally viewed as a lifelong vocational commitment on the part of the priest.

Second Cleric:

In another risk assessment where the polygraph was viewed as unhelpful, the cleric passed the examination with regard to the specific questions put to him about touching a child under the age of sixteen for sexual reasons or masturbating to thoughts or images of a child who he believed to be under that age. The priest's responses during polygraph suggested 'No Deception Indicated' when giving a neg-

ative response to these questions. The SC respondent considered that the polygraph was not of any assistance since the cleric passed on these items.

Authors' Commentary:

The authors took the view that this was a positive outcome in relation to assessing this cleric's possible engagement in illegal behaviours. However, concerns about being generally overly tactile and causing parishioners and members of the community to become uncomfortable through this behaviour was referenced and highlighted in this assessment (though not reflected as potentially criminal in nature). In addition, there were indications that physically intrusive behaviours, likely not of a sexualised nature, continued to create problems for the priest in ministry and required addressing through an intensive intervention and further safeguarding work.

In reviewing this safeguarding response, the authors have cause to support the SC's additional comments that a 'more cooperative process' is necessary, involving the referred party as well. The advice given by the SC was,

„It would be good at the point of referral for the referrer and the assessor to speak about the process they intend to use so that the cleric can be better supported in this effort”.

The SC also acknowledged, „At the point of referral, this was a new process for the safeguarding body” and it was considered that 'there was some learning to be done as to how to best support the process and to gain a greater understanding of the techniques used and outcome relevance'.

Third Cleric:

An equivocal appraisal was made by this SC, reflecting an acknowledgement that the polygraph's inclusion added to the comprehensiveness of the assessment, though concluding, 'whilst its use resulted in disclosures that may not have otherwise been made, this did not result in any criminal action'.

Authors' Commentary:

The authors would assert that the assessment of risk of harm to parishioners and the community extends beyond issues of the legality of a cleric's actions and into the domain of the moral and ethical appropriateness of their behaviour, such that the priest's observed behaviour projects them as a transparently positive member of the Church who can be relied upon and trusted. Again, the SC reflected that making disclosures hitherto concealed was a distressing prospect for the cleric, and

the authors would have to conclude that, where disclosures are given that offer the Church an opportunity to better safeguard their parishioners whilst also highlighting areas of deficiency or even deviance in the behaviour of the priest, it is unsurprising that there would be some distressing aspects in the reporting of these behaviours and predilections. The SC concluded that they believed the inclusion of the polygraph gave some evidence of abusive behaviours that would otherwise not have been reported, though they concluded that the actions taken by the diocese would not, ultimately, have been much different, irrespective of these further disclosures being made.

Within this assessment, the priest in question produced a ‘Deception Indicated’ result on the polygraph in relation to questions with regard to touching a child under the age of sixteen for sexual reasons, arranging to meet a child of this age for sexual reasons, and communicating with a child under the age of sixteen for sexual reasons. In post-polygraph interviews, the cleric acknowledged behaving in ways to induce physical contact with children and promote sexual arousal for himself. He had hitherto denied self-interested and sexually deviant motivations for engaging in this behaviour with children. As such, this disclosure from the perspectives of the authors had highly pertinent and direct relevance to future decision making about the appropriateness of the cleric remaining in ministry.

Fourth Cleric:

This SC reflected that they wished that they had incorporated the polygraph into the assessment process as they concluded that the report was only somewhat helpful and this, in their opinion, related directly to a shared view that the cleric, throughout, was not open and engaging. In the narrative section of the feedback form, the SC indicated that at the time of this assessment, “A senior police officer and a barrister specialising in child protection were of the view that the advantages of polygraph were limited, and doubts were held about the polygraph’s reliability and admissibility”.

Authors’ Commentary:

In subsequent discussion with this SC and other interested parties, the authors referenced several papers that address these issues in some detail (Jack & Wilcox, 2018; Wilcox & Collins, 2020; Wilcox et al., 2020), noting evidence that reliability rates are high and admissibility is not an issue in relation to the clinical use of the polygraph in these settings for monitoring purposes. It was also noted

that, in this context, the polygraph has an established place in UK law for the supervision of individuals who commit sexual offences (Offender Management Act, 2007) and more recently, domestic violence offenders in the UK (Domestic Abuse Act, 2021) as well as released individuals convicted of terrorist crimes (Counter-Terrorism and Sentencing Act, 2021).

Resonating with comments made above and subsequent views expressed by SCs elsewhere, a theme began to emerge of the benefits that would accrue from providing specific training to safeguarding offices with regard to various elements of a forensic psychological risk assessment and, where deemed appropriate, exploration of potential gains achieved through including the polygraph as an adjunctive measure.

In particular, the SC referenced a need to improve the preparation phase of a risk assessment, with reference made to the „cumbersome Catholic commissioning documentation” that may, at times, potentially impede the practicalities that make the whole risk assessment work. This particular SC considered that, as the professionals undertaking this work, the authors could have been more directional in this area, with first-hand knowledge of what works and what does not work, that may not be so readily known or available to the safeguarding office. Indeed, this individual concluded, „I suspect many commissioners from the Catholic Church will be similarly limited in their knowledge base” and as such, a relevant information handout would have been of considerable assistance at the outset.

The issue of Canon Law was also raised, with the SC noting that, through these powers, the priest has considerable flexibility in deciding what kind of engagement in the assessment process they are willing to accept (Jones, 2011). This SC also noted, „We have learned a lot about the benefits of virtual meetings (since the advent of COVID)” as this assessment was undertaken, pre-pandemic, in 2019. As such, it was suggested that helpful pre-meetings could have been undertaken using Microsoft Teams or Zoom. The SC concluded that such discussion might have promoted a better common shared understanding of the aims of the assessment and the procedure advised.

Fifth Cleric:

This SC also reflected that they would have wished to have included the polygraph in the assessment process, though the priest ultimately withdrew consent and refused to engage in this aspect of the assessment.

Authors' Commentary:

It was, however, noted that additional disclosures were made by the priest leading up to the anticipated polygraph examination that proved to be helpful in framing this individual's level of risk and indeed suggested to the SC that the assessment „would have been more in depth had (the cleric) agreed to engage” fully, i.e., undertake the polygraph.

Sixth Cleric:

This SC spoke positively about their perceptions of the added value that polygraph's inclusion may have brought to the assessment process. However, in this instance, it was not employed and the respondent echoed a similar concern about gaining more information with regard to what its application might contribute to the assessment. Further reflections were made that perhaps the polygraph's use should be examined within a context of considering the 'proportionality' of the risk issue and investigation procedure required.

This and other safeguarding responses have reflected that more information should be provided to the referrer with regard to the process of undertaking the risk assessment to ensure that the referrer is in an informed position and can provide appropriate support to the person being assessed.

Seventh, Eighth, and Ninth Clerics:

The feedback given by two SCs from the same diocese were uniformly supportive in relation to the three cleric assessments they commissioned. They concluded, „We would use the polygraph as it was useful to highlight any deception indicated which is clearly an issue for a Bishop when determining any future ministry for a cleric”.

Authors' Commentary:

In the judgement of the authors, the SCs evidenced a good understanding of the polygraph's utility within the assessment, though also sought further input and training around the overall forensic psychological assessment process.

Tenth Cleric:

This SC offered the following narrative responses with regard to polygraph's inclusion,

„Yes, we would definitely be more inclined to include the polygraph in the assessment process in the future. The inclusion of the polygraph test allowed the examiner to structure the questions on the sexual history form in such a way that it fed into the polygraph test process. This demonstrated that without the polygraph test, the cleric may not have answered so honestly. Although this may exert an amount of pressure on the cleric it demonstrates their ability to comply and show whether or not they will attempt to be deceitful and not work within the process honestly. These questions ahead of the polygraph test revealed new (risk related) information that was suspected, but not known or even accepted by the cleric”.

Eleventh Cleric:

This SC responded,

„The polygraph in this assessment was invaluable. The cleric was not open and honest and without the questions ahead of the polygraph test, the information that became available around risk would not have been revealed. The level of concerns discovered were of such magnitude that the decision was made for him never to return to ministry. These were matters not of a criminal nature, but behavioural. Polygraph tests alone are useful, but it is the sexual history questions ahead of the test that exposes avoidance and deceitfulness, which in this instance was ‘off the scale’. Those matters revealed were not directly linked to the individual’s index offence but outlined decades of concerning behaviour which was not known to the diocese”.

Authors’ Commentary:

The authors concluded that this SC, as was the case with some of the others, had helpful, prior knowledge about the polygraph’s utility for such investigative purposes. Further, the authors note that the application of the polygraph in the forensic risk assessments undertaken proceeded most smoothly where the SC came from a secular career background in public protection and actually had prior experience of the monitoring applications of this instrument.

Twelfth Cleric:

At the point of referral, the SC endorsed the polygraph’s use. In providing feedback, they reported,

„We asked specifically for polygraph to be included to provide additional confidence around the findings and to support the process. We were aware that the individual had some ‘oddities’ but needed to be clear if these presented a risk to the young and vulnerable. This approach was further supported by the LADO outcome, which was formally unsubstantiated but where both we and the statutory authorities had considerable remaining concerns. We needed professional assistance to understand these to be able to address them. The employ-

ment of the polygraph in this case assisted greatly in resolving those concerns in a way that allowed us to positively move forward with the individuals”.

This SC further reported,

„Whilst I was very comfortable in the commissioning process and was clear about what I required, including the use of the polygraph...and the contract from the Catholic standards agency...I am not convinced that all my colleagues in other diocese would be on the same page around this issue. There remains a great deal of myths around the use of the polygraph and what it adds, which would benefit from greater explanation to many of my colleagues”.

Authors’ Commentary:

In dialogue with this SC, there was agreement that there appears to be an unhelpful mindset that persists which frames the polygraph bluntly as a ‘lie detector’, though this SC’s views seemed to chime with the first authors’ comments noted in *The Economist*, „It’s more useful as a truth facilitator than as a lie detector” („Lie-Detectors Might Be Useful”, 2019).

Indeed, the SC referenced biased and inaccurate views held even by professionals about the employment of this tool, noting previous employment with the police where they had acquired considerable knowledge and experience of its use. This respondent noted being particularly keen to counter the „black magic brigade who lack a proper understanding of how the polygraph is used in a clinical setting”.

Conclusions

Whilst, overall, the authors’ broad survey identified a high level of endorsement of secularly undertaken forensic psychological risk assessments, there were indications of diverse views in the ways that SCs perceived potential benefits of the polygraph within the assessment process. This seemed to centre around the issue of prior knowledge and experience about the possibly helpful applications of the polygraph in assessing risk issues. Relatedly, concerns were raised that the polygraph increased the levels of distress in the clerics being assessed, thus negatively impacting on the SC’s ability to work collaboratively with the cleric at the end of the process.

Suggestions were made by SCs that some structured training around the various elements of forensic psychological assessment would be of assistance to them and to other key individuals in the diocese, including Church advisors. Individuals who had experience of the polygraph seemed clearer in their views, that achieving

greater openness and transparency in investigating risk behaviours for purposes of protecting the community was a higher priority than maintaining a positive working relationship with the cleric. However, where possible, and perhaps facilitated through training, both aims should be pursued.

The authors noted that concerns were, at some points, raised that the investigation of these risk issues did not lead to criminal convictions. Here again, the authors would posit that there is a possible learning need to address here. Relatedly, the authors considered that achieving such a result was not the key purpose of the assessment, but rather gaining a more robust and comprehensive understanding of the risk that the cleric might pose to the public and to the reputation of the Church.

The authors noted that where clerics were cooperative in engaging with the assessment process, including demonstrating a willingness to be polygraphed, the priest's views about its usefulness were, accordingly, often judged by the authors to be more positive, even where they acknowledged risk-related behaviours that had hitherto been concealed. Indeed, within this process, the authors would emphasize the need to maintain a supportive manner in respecting and valuing open disclosures that were made whilst also promoting more honesty in those clerics that were less forthcoming (Wilcox et al., 2020).

The authors further note that, by definition, distress occurs when an individual is exposed to anxiety-provoking circumstances. Relatedly, any concealed, self-interested behaviours that might negatively impact on a priest's potential for maintaining a position in ministry would necessarily reflect the criteria for such an emotional experience. However, within this process, the assessor and polygraph examiner consistently endeavour to demonstrate an attitude of respect towards the cleric for efforts made to be open and honest about risk issues.

This survey across seven participating Catholic diocese safeguarding offices revealed variation in the knowledge base of SCs with regard to the risk assessment process and more particularly, the employment of the polygraph within this context. The authors formed the view that those parties who are most knowledgeable about the polygraph, often coming from secular backgrounds in public protection (including retired police and others who have undertaken community safeguarding roles) brought with them a level of understanding or experience of the applicability of the polygraph in this context that some of their colleagues lacked. Whilst the authors have produced papers and clarifying information about the employment of the polygraph with clerics (Jack & Wilcox, 2018; Wilcox, 2019;

Wilcox et al., 2020), they considered that this information has not likely been as widely disseminated as would be helpful for SCs to make informed decisions about the polygraph's potential utility.

The suggestion of preliminary discussions employing videolink pre-instruction discussions is viewed by the authors as a helpful way forward. In this way, relevant information can be imparted to SCs at the outset to assist them in understanding the purpose of the assessment, which will normally necessitate comprehensive assessment of the risk posed by the priest as the primary aim, such that the Church can make responsible decisions about the future of this cleric in the Church.

The truth facilitation role of the polygraph in clinical settings has increasingly become recognised (Wilcox, 2000; Wilcox & Collins, 2020) and now has a place in law in the UK, for monitoring the behaviour of different types of offenders, including those who commit sexual offences, domestic abuse, and acts of terrorism. The authors consider that there is an important requirement to enable SCs to work 'on a level playing field' with regard to achieving a similar level of understanding about the forensic psychological assessment process and polygraph's often helpful role in this effort.

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Leading Interview and Interrogation Techniques. Focus on Cognitive Interview*

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Abstract

Criminal investigation in Mexico is performed by the investigation triad, which is made up of police and experts in different areas such as medicine and prosecutors. They all use interview and interrogation techniques to do their work. Unfortunately, in Mexico, there is no culture of training in governmental institutions responsible for investigating crimes, and results in ignorance of techniques for obtaining objective and reliable information that guarantees the protection of fundamental rights. This chapter illustrates the scope and limits of interview and interrogation techniques and their objectives, with emphasis on the cognitive interview (CI). The CI, which has been validated scientifically, is one of the best tools to obtain useful information, that is, results of a CI that have been conducted in the field can be used in a court of law. This technique can be used with victims, witnesses, or suspects. The current chapter also describes the most utilized techniques, cognitive interview, mnemonic techniques, Strategic Use of Evidence, and Verifiability Approach.

Key words: Cognitive interview, Investigative interviewing, Interviewing techniques

Background

It is impossible to talk about criminal investigation without understanding its objective and the tools used to explain criminal behavior. To do this, it is necessary to know the investigation techniques that exist, such as interviewing and interrogation, physical and electronic vigilance, forensic science, undercover operations, audits, and other techniques (Knoke & De Lise, 2010). Interviewing and interrogation techniques stand out because they are accessible, economic, simple, and effective tools in obtaining information from witnesses, suspects, or victims, all of whom can be cooperative or hostile. Even though they are technically distinct processes, interview and interrogation share the objective of obtaining information. The acquisition of information can be done by persuasive or inquiring approaches. Therefore, we can apply two fundamental strategies: persuasion and coercion, which utilize means of legal, physical, cognitive, or social tactics (Goodman-Delahunty, Martschuk & Dhami, 2014). Although other investigation techniques exist, none of them are as enriching as an interview, where live conversation allows the investigator to observe, analyze, and define the objectivity and precision of the information. This utility is due to the fact that all human beings develop communicative instincts and abilities early on in life. Unfortunately, they can be contaminated with bias, prejudice, or inferences. However, there are ways of verifying the obtained information with other techniques to determine its reliability and precision. Additionally, in the process, interview and interrogation techniques give the

investigator the chance to assess the credibility of the testimony using a variety of practices, some identifying signs of stress through nonverbal language, others analyzing the verbal content of speech looking for contradictions or the amount of verifiability details.

Throughout history, different kinds of interview and interrogation protocols have been developed with varying objectives. We highlight police related interviews and interrogations in this chapter. This includes, but is not limited to, work with victims or witnesses as part of a first responder protocol. They are known as police interview techniques. Interview and interrogation used by detectives are known as criminal interview and interrogation techniques and they mainly look for suspects' confessions. Investigative interviews are conducted to elicit information from persons during a process of an investigation (information gathering approach). Those conducted by police can vary in purpose, scope and content, and therefore are useful to interview witnesses, victims, or suspects, in all cases, their characteristics are that the approach does not presume guilt, does establish rapport, and uses some principles such as allowing the suspect to freely offer his or her account, and presenting evidence in a strategic manner (Meissner, Redlich, Michael, Evans, Camilletti, Bhatt & Brandon, 2014). Technically, an investigative interview is a non-accusatory, fact-gathering conversation to determine facts, sequences of events, alibis, or to confirm information with a specific interviewee following an interview strategy, known as PEACE Model (Clarke & Milne, 2001).

As it has been observed, there are different meanings for the processes that seeks to obtain information from human sources, that is, through interviews and interrogations. These differences emerge from at least two variables, the first is the interview or interrogation characteristics, for example, fact gathering interviews approach look for establish rapport and employ open-ended questioning. The primary goal is elicitation and focuses on cognitive cues of deception. On the other hand, the accusatorial method tries to establish control, uses psychological persuasion, the primary goal is confession, and it focuses on anxiety cues of deception (Meissner, Redlich, Bhatt & Brandon, 2012). The second variable is the legal framework that allows its use. For example, in America, there are police interview and interrogation techniques that seeks to get a confession because the value of this kind of evidence is taken into account in a court of law. The problem with these techniques is the possibility of getting a false confession and wrongful convictions. In United Kingdom, in order to avoid erroneous sentences secondary to false confessions, the act of Police and Criminal Evidence act was promulgated (PACE, 1984), that which prohibited

judges from admitting confession if it was obtained through coercive interviewing or interrogation techniques, and based on that resolution, all police interviews and interrogations in England and Wales would have to be videotaped since that year. As a result, in 1992, the PEACE Model was applied as part of a standardized strategy to apply investigative interviews focusing on the development of rapport, explaining the accusation and its nature and seriousness, emphasizing the importance of honesty and acquisition of truth, resulting in ethical interviewing based on information gathering approaches.

Some of the techniques that contemplate interrogation have been criticized for producing false confessions (Starr, 2019). In 2014, Goodman-Delahunty, Martschuk & Dhimi proposed that all interview and interrogation procedures can be used with different strategies, some coercive and others not. We think that interrogation is a more dedicated process because its objective is to get a confession, and not using the best practices, application, and guidelines can result in false confessions and wrongful convictions, for example the New York Central Park Jogger rape case, where five black adolescents were questioned by the police, and four of the boys admitted a crime they didn't commit. Fortunately, the boys gave conflicting accounts of the crime and none of the DNA evidence matched any of them.

As shown in Table 1, some techniques use psychological pressure to obtain information, known as admittance or confession (Sigurdsson & Gudjonsson, 2001), which can provoke false confessions or obtain dubious, questionable information. The current chapter shows the need to change current Mexican interview and interrogation procedures to obtain truthful information, since the vast majority of police departments currently use illegal "third degree" interview and interrogation techniques, a concept related to emotional, physical, or cognitive pressure. On the other hand, Information gathering interview techniques as the CI, respect rights, prevent torture, and contain the following factors to prevent false confessions: the utilization of rapport, assertive and effective communication skills, and be based on behavioral (Abbe & Brandon, 2013) and cognitive memory neuroscience (O'Mara, 2015).

Cognitive Interview

Cognitive Interview (CI) was developed in 1984 (Geiselman, Fisher, Firstenberg, Hutton, Sullivan, Avetissian & Prosk, 1984). It was initially designed for only interviewing witnesses (Memon, Meissner & Fraser, 2010). It involves four elements:

report everything, mental reinstatement of context, change order, and change perspective (MacPherson & Della Sala, 2019). The CI was updated to include “social dynamics between the interviewer and witness, witness and interviewer memory and other cognitive processes, and an effective communication between witness and interviewer” (Fisher & Geiselman, 1992), (Fisher & Geiselman, 2019).

The main objective of the CI is to recover trustworthy information from memory, to do so, the CI based his theory on the way memory works, that is to say, taking into account the act of acquiring information from an event through the senses, that is knowing as encoding; also storage or the way memory can be stored in short or long term, which allows the retrieval of information in several different ways from witnesses and victims, and was recently adapted for use in criminal investigation scenarios (Satin & Fisher, 2019).

In countries with regular interview and interrogation principles, standards, policies, and guidelines, the CI is a questioning technique generally used by the police to improve the quantity and quality of information recovered from the memory of witnesses and victims directly or indirectly involved in a crime. However, recent research has shown that the CI can be useful for questioning pilots or astronauts about detailed information from memory about their missions, athletes after a competition, surgeons and medical staff after surgical interventions, and other circumstances (Fisher & Geiselman, 2019).

Originally, the application of the CI technique should follow or apply some strategies that facilitate memory established in the core elements of the CI which are based on four fundamental psychological processes: social dynamics, memory, communication and cognition (Fisher & Geiselman, 2019), (Ibid., p. 3).

- Social dynamics includes rapport, active respondent participation, no interruptions, and the use of open-ended questions.
- Memory can be retrieved in different ways, that is encouraging respondents to search through memory in different ways, for example recovery through sensations such as aroma or weather, change perspective and reporting everything.
- Communication instructs the individual to provide a detailed account and not edit information allowing the respondent to output their knowledge in the same form as it is stored (often nonverbal).
- Cognition is related to instructing the respondent not to guess and to close their eyes.

Structurally, the CI involves the following steps:

1. Social dynamics

The main purpose of interviewing someone is to obtain a complete, truthful, and accurate account of what happened in a specific event, for that to happen, good communication must be established. Rapport is one element, understanding the meaning that “the establishment of all the elements that favor a good communication”. To date, there are many known strategies, to establish rapport, like the use of the “Devil’s advocate” (Pérez-Campos Mayoral & Langer, 2019), using attentive behavior, imitative behavior, courteous behavior, common grounding behavior (Gremler & Gwinner, 2008), that is, the behavior that results from individual interactions such as treating the interviewee with respect, giving them information and explaining entire procedures, using open ended questions promoting full narrative without interruptions, and allowing them to perceive themselves to be the experts also favor the establishment of rapport (Fisher, 2010). As a result of a good communication process will Reduce the authoritarian component of a police interview, transferring the information flow control from the interviewer towards the interviewee (Griffiths, Milne, & Cherryman, 2011), encouraging dynamic participation using active listening strategies through the intonation of voice, the positioning of the body, and facial expressions.

2. Explain a detailed description of the event

The interviewer should initiate an uninterrupted free report from the interviewee through the use of an open-ended question like: “Tell me everything you remember, even the little things you think are not important, remember I was not at the crime scene so just tell me everything in your own time and words”. To facilitate this phase, the interviewer can help the interviewee with general and specific mnemonic techniques.

2.1. General enhance mnemonic techniques

2.1.1. Detailed testimony request

The interviewee is requested to report every detail, even if they think it is trivial. In this way, seemingly unimportant details can act as a trigger for key information about the event. It is essential not to interrupt the interviewee during their narration or to ask specific questions. Active listening strategies like summarizing can be helpful at this moment (Moulton, 2017).

2.1.2. Mental reestablishment of context

The interviewer tries to mentally restore the environmental and personal context of the crime by asking the interviewee about their activities and general feelings the day of the event. This can be achieved by displaying images, sounds, feelings and emotions, emulating the weather or the place where it happened, etc. Witnesses are generally asked to use their five senses to remember the event, which can help recreate the circumstances in the mind and thus trigger context-dependent memory recovery.

2.1.3. Using focused concentration

Implies asking the interviewee to understand that searching through memory requires hard concentration and is not easy. Must let the interviewee know that he or she has all the information in memory, so he/she must do most of the work at this phase of the interview. The interviewers must be patient to not disturb or distract the interviewee with nervous habits like tapping fingers or clicking pen. Also asking to make eye contact and asking many closed questions will generate interruptions and disrupt concentration at this phase of the interview (Fisher & Geiselman, 1992), (Ibid., p. 103).

2.1.4. Encouraging multiple retrieval attempts

The principle behind this technique is that memory retrieval is a search process, and like all processes, more searching leads to more findings (Fisher & Geiselman, 1992), (Ibid., p. 107). Interviewees must be encouraged through open ended questioning to explore new areas looking for additional information. Additionally, silence after open ended questions induces more elaborated responses. Interviewers must avoid looking unmotivated or that they don't care about what the interviewee answers, this often results in a premature reduction of interest for searching information in memory.

2.2. Specific mnemonic techniques (Varied retrieval)

2.2.1. Event report from different perspectives

Interviewees are asked to report the incident from a different perspective. Care must be used because the interviewee can misinterpret the instructions encouraging them to guess or fabricate an account. To decrease the probability of error, the interviewer must ask the interviewee only to report events that he or she actually experienced followed by the instruction of no to guess.

2.2.2. Event description of differing order

Request to report the incident in a different narrative order is a good way to recover peripheral details (irrelevant information) of the history, but this information can detonate memory recall. Although the “natural” way to remember an event is in chronological order, if people are asked to think about the event in a different order (e.g., backward), new information should become available.

3. Questioning

This phase looks for detailed information about the free narrative phase, but before asking the interviewee any questions, it may be helpful to outline what is to be expected, thus, it is helpful to inform the interviewee that it is time to ask some questions based on what he or she has already told in order to expand and clarify what they have said. It is suggested to use open ended questions about the event, actions, time, circumstances or people, and to later ask closed questions to clarify details.

4. Drawing

Asking the interviewee to draw a sketch of the history will help to reinstate the context so new information would be acquired, and also will help the interviewee and interviewer to orientate themselves (relations between people and objects in the event scene), allowing them to remember more details of the narrative (Milne, 2004). The request for an illustration should be presented to the subject as a means to clarify the narrative for greater understanding by the interviewer as well as to give the subject another opportunity to recall additional information (Geiselman & Fisher, 2014).

5. Identification of important items

After the drawing phase, it is possible that new information will develop. In this case, it is necessary to ask clarifying questions, or to expand this new information with open ended questioning and then closed questions looking for details or to corroborate information. Some authors use this phase to assess credibility using the Strategic Use of Evidence (SUE) to gently challenge the previous narrative, increasing the cognitive load or using the Verifiability Approach (VA).

6. Reviewing the interview

The interviewer summarizes the interviewee account, repeating all the relevant information, allowing the interviewee to check the accuracy of the provided infor-

mation and also serve as an additional retrieval phase allowing the addition of new uncover information.

7. Closing the interview

Closure needs to be friendly and methodical conducted. Allows to provide the interviewees with the appropriate information about the next stages of the process, for example tell a witness where or not they should expect to attend court, this approach facilitates a second interview in case necessary. Fisher & Geiselman (1992) suggest three specific goals for the end of the interview, the first is to collect background information at this phase because it is impersonal information and does not help to develop rapport, the second is extend the functional life of the interview asking the interviewee to keep trying to remember information even the interview as finished, and the last one is to create a positive last impression expressing thanks for the participation and concern about the interviewee.

The following section is oriented to help the reader to understand the techniques that could be used with the implementation of the CI in order to assess the credibility of the information acquired with this approach.

Forensic credibility assessment

Cognitive lie detection approach

There are various theoretical approaches in deception detection research. The “leakage hypothesis” is one of them. It assumes that attempts at deception result in the ‘leakage’ of the deception into physiological changes or behaviors. This hypothesis underlies most non-verbal assessments of deception. In this section we analyze the use of cognitive lie detection techniques that evaluate verbal cues of deceit, often more diagnostic than nonverbal cues of deceit. The cognitive lie detection approach theory states that lying is more cognitively demanding than telling the truth and that increasing the cognitive load for interviewees should increase the number of deception cues (Ibid.) (Vrij, Fisher, Mann & Leal, 2006).

The reason cognitive lie detection approach works is because this technique magnifies the difference between liars and truth tellers, that which leads to greater discrimination between the two (Vrij, Fisher & Blank, 2017) because:

- Fabricating lies is cognitively demanding.

- Liars are less likely to take their credibility for granted and they usually monitor and control their own behavior to appear honest.
- Lying requires justification.
- Liars need to suppress the truth while they are lying.
- Lying is intentional and deliberate, which is cognitively demanding.

Increasing cognitive load

An investigator must have a “tool box” to use during an investigation. Among these tools, interview and interrogation techniques are the most frequently used to obtain information. As we indicated in this chapter, some of the tools are gathering interview techniques and can be used with witnesses and victims, whereas others are specific for suspects. Although all interview and interrogation techniques have different objectives, they also share a few of them. One objective is to assess whether the information obtained is true or false. The “interview methods” that use detection deception techniques are commonly called “cognition based” rather than “arousal based” to distinguish them from techniques like the polygraph test (Ibid.) (Nortje & Tredoux, 2019). CI technique is not intended to assess credibility etiologically speaking, however, the reverse order part of the CI is used by some authors to assess the credibility of the testimony what is the purpose of this parenthetical comment (“tools”). All of these techniques are “tools” being somewhat exhausted by the cognitively demanding task of lying (Vrij, Leal, Mann & Fisher, 2012). Imposing cognitive load refers to interviewer interventions aimed at making the interview setting mentally difficult. Liars who require more cognitive resources than truth tellers will have fewer cognitive resources left over. If cognitive demand is further raised, which could be achieved by making additional requests (tools), liars may be less able than truth tellers to cope with these additional requests (Vrij, Fisher, Mann & Leal, 2006).

Lying is more cognitively complex because fabricating details is more difficult than telling the truth. It takes more time to prepare deceptive statements. (DePaulo, Finkelstein, Rosenthal & Eisenstat, 1980), (Zuckerman, DePaulo & Rosenthal, 1981).

The following are techniques of how to increase cognitive load in an interview setting:

- The reverse order instruction.
- Introducing a secondary task during the interview like maintaining eye contact with the interviewer (Beattie, 1981) (Vrij, Mann, Leal & Fisher, 2010).
- Collective interviewing. Another way of imposing cognitive load is through a procedure called ‘forced turn-taking,’ which can be employed when two or more interviewees are interviewed together at the same time (Vrij, Jundi, Hope, Hillman, Gahr, Leal, Warmelink, Mann, Vernham & Granhag, 2012).

Verifiability Approach

The Verifiability Approach (VA) is a strategy-based approach that operates under the dilemma faced by liars in providing false statements (Nahari, Vrij & Fisher, 2014). While liars may be aware of how to provide statements rich in details to generate a more honest impression, this same interview strategy could be risky for liars, because the simple fact that providing greater information suggests that the interviewer will have more opportunities to check the interviewees story.

In addition, the job of an interviewer is to verify details that have been provided by the interviewee and therefore liars usually avoid providing verifiable information. Liars commonly provide unverifiable details that appear to be truthful statements, which could be difficult to verify. Liars also, avoid self-incriminating statements by providing the least details possible, which may be indicative of deception.

Providing non-verifiable details, suspects avoids incriminating evidence. When using the VA, the interviewer is focused on evidence, therefore, it is no longer significant, if the verbal and nonverbal responses are detailed. Quoting Vrij and Nahari in 2019, “Also the interviewer does not actually have to check the truthfulness of the evidence mentioned by the interviewee to form a credibility assessment but only to count the number of checkable details reported”.

Asking unexpected questions

Another technique used to increase the differences between truth tellers and liars is to ask unexpected questions. If liars suspect that they are going to be questioned about a particular event, they will prepare for the interview by developing answers to questions that they assume they will be asked. Some of the most

revealing questions, however, are those that are unexpected. Asking unexpected questions helps to provoke and enhance verbal differences between truth tellers and liars and facilitates lie detection (Vrij, Leal, Granhag, Mann, Fisher, Hillman & Sperry, 2009).

Strategic Use of Evidence

The Strategic Use of Evidence (SUE) technique consists of two levels, one strategic and one tactical (Hartwig, Granhag & Luke, 2014). The first consists of general application principles of the technique and is, in a sense, abstract. At the tactical level it is more concrete since there are specific application tactics in the process of any information gathering interview. These tactics are divided into three categories: background assessment of the case before the interview, the planning of questions, and the revelation of evidence. This approach invites the interviewer to plan the best time to show physical evidence for the purpose of identifying lack of veracity and forcing the interviewee to change their response to then continue questioning them, until there are unable to give a logical answer to their acts. In appearance, it is a very simple technique because it seeks to compromise the interviewee with a version of the facts, and then demonstrate by disclosure of evidence that they are in error, thus forcing them to change their version of the testimony and encouraging the disclosure of more information.

Closing comment

In Mexico, police departments need to adopt new interview and interrogation procedures and other science-based technologies that seem to be more appropriate to obtain information and assess credibility in legal and forensic environments. This work aims to enlighten the reader of the need to change paradigms and evolve as modern societies. Currently, the CI technique used with the PEACE Model is recommended by the United Nations for being effective and respectful of fundamental rights, which allows the evaluation of the veracity of a testimony and the systematic acquisition of detailed information useful in diverse contexts, like police officers acting like first responders or in the legal use with victims, witnesses, and lastly, suspects.

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Table 1. Characteristics of information-gathering and accusatorial interrogation techniques

Techniques	First responder police related	Criminal detective	Forensic science expert	Aims	Strategy (Goodman-Delahunty et. al, 2014)	Interview, interrogation (accusatory model) (Jayne & Buckley, 1999) or investigative interview (Information gathering interview) (Milne, Shaw & Bull, 2007)	The information acquired is admitted in court according with the federal rule of evidence or Dauber criteria (Green, Nesson & Murray, 1999)	Credibility assessment camp (emotion vs cognitive) (Driskell T. & Driskell J.E., 2019)
Cognitive Interview (CI)	Yes	Yes	Yes	Obtain information from witnesses, victims and suspects	Non-coercive practice	Interview or investigative interview (PEACE Model)	Yes	Cognitive, evaluate conduct through verbal behavior
Wicklander-Zulawski Criminal Non-Confrontational Interview & Interrogation (NCII)	Yes	Yes	No	Obtain admission or confession from suspects	Non-coercive practice	Interview & interrogation	Obtained information admitted in a court of law. <i>Dassey v. Dittmann</i> , 877 F.3d 297 (7 th Cir. 2017)	Emotional, evaluate conduct through Nonverbal behavior
Conversation management (CM)	No	Yes	Yes	Obtain information from suspects or reluctant witnessed	Non-coercive practice	Interview or investigative interview (PEACE Model)	Yes	Cognitive, evaluate conduct through verbal behavior
Self-Administered Interview (SAI) adopting CI	Yes	No	Yes	Obtain information from witnesses and victims	Non-coercive practice	Interview	Yes	Does not apply
Forensic Experiential Trauma Interview (FETI)	No	No	Yes	Obtain robust and reliable information from victims	Non-coercive practice	Interview	There are no empirical analyses of the efficacy of this technique (Ray, 2015)	Does not apply
The REID technique of interview & interrogation	Yes	Yes	No	Obtain admission or confession from suspects	Non-coercive practice if correct applied.	Interview & interrogation.	Obtained information admitted in a court of law. <i>US v. Jacques</i> (March 2014)	Emotional, evaluate conduct through Nonverbal behavior

SCHARF	Yes	No	No	Obtain intelligence from human sources	Coercive & Non-coercive practices. (depends on the interviewer)	Interview	Does not apply	Does not apply
Achieving best evidence (ABE)	No	Yes	Yes	Obtain robust and reliable information from child, adolescent, or vulnerable victims or witnesses	Non-coercive practice	Interview	Yes	Cognitive, evaluate conduct through verbal behavior (McCarroll, Ridgway & Williams, 2004)
National Children's Advocacy Center (NCAC) protocol of forensic interview	No	No	Yes	Obtain robust and reliable information from children who may have experienced abuse or who have witnessed a crime or other violent act	Non-coercive practice	Interview	Yes	Does not apply
serve, Target, Engage, Respond (OTER- interview based on behavior analysis in airports)	No	Yes	No	Obtain information, admission or confession from suspects travelers	Coercive & Non-coercive practices. (depends on the interviewer)	Interview	Does not apply	Emotional, evaluate conduct through Nonverbal behavior
General Interview Strategy of Dutch Police (GIS)	No	Yes	No	Obtain information from suspects	Non-coercive practice	Investigative interview	Yes	Cognitive, evaluate conduct through verbal behavior (Hoekendijk & Van Beek, 2015) (Vrij, Granhag, Mann & Leal, 2011)

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What Do Polygraphers–Practitioners Expect from Science?

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Abstract

The purpose of the study was to learn the opinions of polygraph examiners concerning the role and applicability of scientific research in detection of deception conducted in Universities or other scientific centres. The questionnaire was distributed among participants of the 56th Annual Seminar of the American Polygraph Association (Orlando Fl. 2022). The 55 copies of the questionnaire were handed out, 48 completed sheets were returned. As it could be expected, polygraph examiners are generally not interested in detection of deception other than the ones they currently using in their practice. The new methods of detection of deception, as for example exploiting the neurophysiological level (EEG, fMRI) or methods remotely observable and registrable indicators other than those that have as yet been used in polygraph examination generally was not interested for him.

Key words: detection of deception – science and practice, detection of deception and forensic sciences, polygraph: research and examination



If I had asked people what they wanted, they would have said faster horses.
(Henry Ford)

Introduction

Polygraph examinations have been conducted for state organs as well as for private business enterprises for over a hundred years. At the moment such examinations are performed by at least several thousand polygraphers all around the world.

There would have been no polygraph examinations and, consequently, the polygraph industry, if not for the earlier research conducted by psychologists, physiologists, and forensic science and criminal justice experts (Widacki 2021).

Their work – the achievements of science as such on the one hand, and the experience of police investigators and lawyers on the other – provided the necessary grounds for the lie detection industry. Even today scientific research continues to accompany the practice of polygraph examination. It supports that practice, to a degree stimulating its development but also its limitations.

The role played in the past by for instance the Northwestern University in Chicago, the Catholic Fordham University in New York City, and the University of Utah in Salt Lake City for the practical usage of the polygraph is evident (Widacki 2021).

Unlike the polygraph-practitioners, whose ranks are counted in thousands, university researchers investigating what is broadly construed as the issues of polygraph examinations are few. The subject is hardly ever the object of academic and scientific research conducted in universities or scientific institutes. It is worth mentioning that many polygraphers–practitioners who publish their works in academic journals have obtained doctoral and other degrees.

It is enough to mention that John A. Larson, one of pioneers of polygraph research, held a doctoral degree, and Professor Fred E. Inbau at Northwestern University held an advanced law degree. He trained and worked closely with John E. Reid (who also held a law degree) and his associates and was a strong advocate of the use of proper polygraph testing. Many others who played important roles in the practical usage of the polygraph in the US, to mention S. Abrams, F. Horvath, and G. Barland, held doctoral degrees. Many practitioners in the US and in other countries (e.g., Israel, Poland) know how to use research tools properly and publish methodologically valuable scientific articles, notably in *APA Magazine* and *European Polygraph*, and ear-

lier in *Polygraph*, and monographic works. Their number includes Krapohl, Shaw, and others. Written primarily by practitioners (M. Gougler, R. Nelson, M. Handler, D. Krapohl, P. Shaw, and L. Bierman), the 2012 APA report entitled *Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques* is valuable both from the practical and the academic point of view.

It seems that the practice of using the polygraph could benefit much from cooperation with the academic research circles. However, it also seems that the circles of polygraphers–practitioners hardly reach for cooperation with academic centres, operating fully independently from them not only in the US but also in many other countries where the polygraph is used.

Let us try to consider whether it is at all possible to imagine the development of forensic medicine without the operation of academic institutes of forensic medicine, forensic pathology, forensic genetics, forensic toxicology etc.? What would forensic medicine be today if it had only been left to practitioners? And if standards of research were not defined by academic centres? If they did not control, also before the court, the level of expert studies conducted in practice? If they did not work out innovative methods of research? Is there any argument suggesting that the case of polygraph examinations is different than those of forensic medicine and other forensic sciences?

Purpose of the study

The purpose of this study was to learn the opinions of polygraphers–practitioners concerning the role and applicability of scientific research in detection of deception conducted in academic and research centres. To do that a short questionnaire was distributed during the 56th Annual Seminar of the American Polygraph Association in Orlando, Florida in August, 2022.

Method of the study

The questionnaire was distributed among the seminar participants, and 55 copies were handed out. They were primarily presented to all the participants who had been members of the American Polygraph Association for over 10 years (“10 years members”). This was possible, as the seminar organizers annotated the participant IDs with such information as “10 years member”, “20 years member”, and “25 years

member". Most individuals who received the questionnaire came from the US, yet a handful also represented other countries: Singapore, Czechia, and Poland. All the answers were anonymous, and 48 completed sheets were returned ($48/55=87\%$).

The questionnaire started from two questions:

1. Do you believe that practical polygraphy needs cooperation with research and university centres?
2. Have currently conducted research, and its published results, been useful for your practice?

Those who answered "yes" to the first question were asked to select three subjects of scientific research they believed to be most desirable from a catalogue of nine suggestions. They could also add their own suggestion(s) of subject(s) whose research in academic centres they considered reasonable.

The proposed research areas, from which the respondents were asked to choose the top three, were as follows:

1. to look for the potential to detect deception at neurophysiological level (fMRI, EEG, etc)?
2. to look for options of detecting deception at psychophysiological level but using other indicators (changes in the tone of voice, changes in facial temperature, changes of facial expressions, etc.) Especially the indicators observable and recordable without the consent or even knowledge of the subject.
3. to analyse current practice
4. to look for best methods and models for numerical assessment of the curves
5. to construct new and improve the tests currently in use
6. to study the diagnostic value (both validity and reliability) of various examination tests and techniques, and compare the diagnostic value of polygraph examinations with the diagnostic values of the methods used in medical diagnosing and forensic sciences
7. to determine the impact of psychological and personality disorders on the course and results of polygraph examination
8. to develop software for interpreting polygraph records (curves)

9. to try to find medical and psychological reasons for disruption or interferences in the results

10. Other subjects. Please specify what subjects you mean

Thus, every recipient was asked to choose three subjects that, in their opinion, should become objects of academic research.

Results

As stated, Forty-eight filled in questionnaires were returned. All 48 of the respondents answered “yes” to the first question; there was unanimous agreement that the practical application of polygraph examinations requires cooperation with research and university centres.

The second question (Have currently conducted research, and its published results, been useful for your practice?) received positive answers from 47 (98%) respondents. Only one person answered “no” to this question.

The choices made by the polygraphers are presented in Table 1.

Table 1. Choices made by the polygraphers

Subject No.	No. of votes (n=144)	% of votes (144=100%)
1.	8	5.5
2.	12	8.4
3.	16	11.1
4.	20	13.8
5.	12	8.4
6.	28	19.5
7.	20	13.8
8.	16	11.1
9.	12	8.4
10.	0	0.0
Total:	144	100.0

Table 1 shows that among the topics of most research interest to the respondents the option listed as #6: “To study the diagnostic value (both validity and reliability) of various examination tests and techniques, and compare the diagnostic value

of polygraph examination with the diagnostic value of the methods used in medical diagnosing and forensic sciences diagnosis” was the one most favored. This option was chosen by 28 practitioners, and among the total of 144 total responses it accounted for 20% of all of the answers. There were two runner-up subjects with 20 votes, or about 14% of the total each. They were, in order, options #4 and #7: “To look for the best methods and models for numerical assessment of the curves” and “To determine the impact of psychopathological and personality disorders of the course and results of polygraph examination” respectively.

Altogether, the options #4, #6, and #7 were chosen as most important for the polygrapher practice 68 times of the total of 144; this is about half of all the possible answers (47.2% to be exact).

Only two respondents were interested in work on the methods of detection of deception at the neurophysiological level (option #2), which accounts for less than 1.4% of all the answers. Three respondents (approximately 2%) were interested in option #1, that is looking for methods allowing to detect deception that are contactless, that is those that do not require attaching sensors to the subject’s body, and therefore make remote examinations possible, and perhaps without the informed consent of the subject. Only one respondent indicated areas of research that were not included in the first nine.

Conclusion

As could have been expected, polygraphers–practitioners are generally not interested in methods of detection of deception other than the ones they are currently using in their practice. They primarily expect that science would provide them with arguments supporting the diagnostic value of polygraph examinations, which, as it seems, could help them to convince the potential commissioners of services, and support of polygraphers’ claims before the courts. They also expect minor tweaks resulting in more precise assessment of polygraph charts.

However, it is justified to believe that the institutions that commission polygraph examinations for their purposes (including intelligence, counterintelligence, law enforcement, etc.) are more interested in looking for new lie detection techniques than the circles of professional polygraphers. Arguments for the above include the research projects commissioned by such institutions as the US Department of Defense (Vendemia 1999).

The new methods of lie detection, exploiting both the neurophysiological level, and remotely observable and registrable indicators other than those that have as yet been used in polygraph examinations, are today the most frequent object of research in academic centres dealing with the detection of deception (Langleben et al., 2005; Widacki, 2007; Vendemia, 2008; Vendemia, 2014; Widacki, 2018).

One cannot but recall a famous quote from Henry Ford, creator of the US mass automobile industry. He insisted that when asked about the preferred means of transport, people would answer that they needed faster horses. Luckily, he never listened to them and started producing cars. Hence the motto opening my article.

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From the Editor

The article presented above describes a certain reality: handful of facts that result from a questionnaire. Though is commonly agreed that „Facts do not cease to exist because they are ignored” (A. Huxley), nonetheless, both the explanation of the reasons behind these facts and the conclusions ensuing from them can be largely different. That is why Editors of European Polygraph hereby open a discussion and invite all our readers to participate. We are ready to publish your voices on the subject.

Book review

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**А.Б. Лисенко, Д.О. Алексєєва-Процюк, В.О.Шаповалов,
Проведення поліграфологічних досліджень для виявлення
осіб причетних до шпигунської та диверсійної діяльності
і подальшого їх контролю, Київ 2022.**

**[A. Lysenko, D. Aliksieieva-Protsiuk, V. Shapovalov,
Conducting polygraph examinations for the identification of
individuals involved in spyware and sabotage activities and
subsequent control of them: methodological guidelines, Kyiv 2022]**

These guidelines were prepared during russia's military aggression against Ukraine by polygraph practitioners: Andrii Lysenko, Diana Aliksieieva-Protsiuk, Vitalii Shapovalov.

The guidelines describe the features of a polygraph examination to identify involvement in espionage and sabotage among civilians, government officials, special services, the Armed Forces of Ukraine, the State Border Guard Service of Ukraine, territorial defense, strategic enterprises etc. The authors suggest:

- examples of the selection of valid methods depending on the tasks and categories of polygraph examination;
- examples of relevant questions for a single-issue, a multiple-facet and a multiple-issue polygraph tests with comparison questions;
- cutscores for diagnostic and screening polygraph examinations;
- example of conducting a pre-test interview, using a special questionnaire and interview route maps (IRM).

The material is prepared based on available methodological literature — the authors' own experience and consultations, received from the leading foreign polygraph examiners.

Vitalii Shapovalov

Reports

**Report from the 56th Seminar
of the American Polygraph Association
(Orlando, Florida, 28 August – 3 September 2022)**

The 56th annual Seminar of the American Polygraph Association was held from 28 August to 3 September 2022 in Orlando, Florida. Nearly 600 polygraph examinations practitioners and scientists arrived in Orlando. Majority of them came from the United States, while Belgium, Canada, Costa Rica, Czechia, Dominican Republic, Egypt, Honduras, Israel, Lithuania, Mexico, Nigeria, Peru, Singapore, Slovakia, South Africa, South Korea, Taiwan, Trinidad and Tobago, Ukraine, and the United Kingdom were also represented. Fellow feelings were expressed for Ukrainian polygraphers.

This time, for reasons more than understandable, polygraphers from Russia and Belarus did not participate in the seminar. The large group of Polish delegates, consisted of 12 people, representing intelligence, counterintelligence, and the academia.

Besides scientific papers, the lavish programme of the seminar included workshop subjects on analysing test data, valid test questions, issues concerning countermeasures, and questions related to the pre-test and post-test interviews. One of the lectures referred to Reid's classic interview technique and interrogation, yet rather than Reid's confrontational forms of interview, these were contemporary "soft" ones that were promoted. Many papers and workshops also em-

phased that the examination must be focused more on gathering information than on obtaining the admission of guilt from guilty subjects. Attention was paid to the role of a good pre-test interview as a prerequisite of an efficient examination and subsequent interrogation, and on truthful subjects sharing more verifiable details.

Other presentations discussed among others specific details on of interrogating witnesses and victims of crime, methods of analysing the content of written statements and evidence, and the question of security of processing and storing data from polygraph examinations. Discussions also extended to a number of instructive case studies that involved polygraphers. One of them was concerned solving a puzzle of what proved a staged robbery of money from a convoy in Massachusetts in 2011. The study on the man accused and sentenced for killing Malcom X, who finally proved innocent, provided particular food for thought.

The stream of lectures on subjects related to psychology included general considerations on the psychology of lie and personality issues that influence the way interviews with various subjects should be conducted. Discussions also concerned the results of studies that demonstrated correlation between traumatic experiences and perception of statement credibility (geared towards false indications of deception). A training of the interrogating personnel on the consequences of the trauma proves an efficient antidote here.

A review of US legal cases proved interesting. Determining whether to admit evidence from polygraph examinations, courts generally applied Daubert standard. They also made sure that polygraphers comply with APA standards, which include audio and video recording of the course of the examination, and proper qualifications of the polygraphers including continuous training and development.

Refusal of being subjected to polygraph testing by officers of governmental bodies can be considered a justified reason for dismissal.

Traditionally, the seminar was an opportunity to present the latest models of polygraph hardware and software (Lafayette Instrument, Stoelting, Limestone i Axciton) and yet another device for assessing truthfulness (EyeDetect). The polygraphs currently available in the market only differ from those offered several years ago with minute tweaks and improvements.

During the Seminar, Donald Krapohl, took over the post of the President of APA. Assuming his duties, President Krapohl presented new authorities of the APA and discussed its key tasks for the coming year.

These were certainly the polygraphers taking their first steps in the profession who found the content of this year's seminar most informative, instructive, and beneficial. Those more experienced drew more from mutual consultations, and exchange of information and ideas during networking between the sessions. Some dissatisfaction could be felt among that group, as there were hopes for a greater progress in methodology and technology of polygraph examinations. Understanding these concerns well, the new president commented on the issue and explained that scientific research is never an easy project, as it is both resource- and time-consuming. Moreover, for objectivism's sake, studies conducted by independent bodies rather than the APA would enjoy greater recognition.

Next year's annual APA Seminar will be held in Las Vegas, Nevada.

MG

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For example (in references):

Reid, J., Inbau, F. (1966), *Truth and Deception: the Polygraph ("Lie-detector") Techniques*, Baltimore: Williams & Wilkins.

Abrams, S. (1973), Polygraph Validity and Reliability – a Review, *Journal of Forensic Sciences*, 18, 4, 313.

and (Reid, Inbau, 1966), (Abrams, 1973) inside text.

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6. If one of the reviewers provides comments and amendments, but does not disqualify the paper, the Editor pass the comments on to the author, asking for the author's opinion and any amendments.
7. Should the opinions of the author and reviewer diverge, the decision to print the paper or otherwise is made by the Editor.
8. In the case mentioned in 7 above, before making their decision, Editor-in-Chief can appoint another independent reviewer.
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10. The names of reviewers is not disclosed to the author, and the names of authors are not disclosed to reviewers.
11. Book reviews and reports are not reviewed, the decision to publish them is the responsibility of the Editors.