

Polygraph

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POLYGRAPH PROGRESS STUDY:

UNITED STATES POSTAL SERVICE

By

N. E. Robbins & W. J. Penley

A study of polygraph procedures and the program progress was made at Washington, D. C., January 14-18 and January 28-February 1, 1974, by Postal Inspectors N. E. Robbins and W. J. Penley of the Eastern and Southern Regions respectively. The study dealt with polygraph tests given between July 1, 1972, and December 31, 1973, a period of 18 months. During this time, there were six Inspection Service examiners, three of whom were newly trained and had just begun testing about July 1, 1972.

To study the technical aspects of our polygraph program, we asked that each of the six examiners submit all the tests he had given during the 18-month period selected.

There were 591 tests given, representing work on 203 cases in the five Regions. The breakdown of these tests is as follows:

- 455 rated NDI (No Deception Indicated)
- * 98 rated DI (Deception Indicated)
- 28 rated Inconclusive
- 10 rated No Opinion (Subject did not finish test)
- 591 - Total tests where charts were available

*Fifty-seven (or fifty-eight percent) of these subjects confessed to the crime under investigation.

Only 23 persons examiners talked with refused to be examined during the 18-month period.

Seventy-six DI (Deception Indicated) tests were chosen for our survey. This included a representative number from each examiner. The tests consisted of from 3 to 12 polygraph charts of about three minutes each in duration.

Stoelting polygraph instruments were used for each examination. Parameters measured were respiration (Pneumo), blood pressure-pulse changes (Cardio), and Galvanic skin response (GSR). In 60 of the 76 examinations, 2 respiration recordings (Double Pneumo) were made.

Questioning techniques were the Backster Zone of Comparison (ZOC) and the Reid Mixed Question Test (MGQT). These are widely used techniques to question for specific crime responses.¹ During 15 examinations, Peak of Tension (POT) charts were run in addition to charts of one or both of the above techniques.

Of the 76 tests studied, 44 (58%) had been confirmed as deceptive through confession of the subject. Six others had been confirmed deceptive through other evidence, such as guilty pleas or guilty verdicts. The remaining 26 (34%) are unconfirmed. No test rated DI had later been resolved to show the test rating of the examiner to be in error.

Several different areas were given particular attention during our study of the polygraph charts. Our findings in each of these areas will be discussed under the appropriate headings.

Prominent Deception Component

Respiration (Pneumo)	48
Blood pressure-pulse (Cardio)	22
Galvanic skin response (GSR)	<u>6</u>
	76 - Total Tests

This evaluation of the prominent component in some tests was subjective since, at times, all three parameters responded excellently, but Inspectors Robbins and Penley lean toward the Pneumo as being the best detector of deception. False responses may occur at times and that they appear to occur more often in the Cardio and the GSR than in the Pneumo.

¹Note: The Backster and Reid techniques listed above are variants of those developed and used by John E. Reid and Cleve Backster. The variations are taught in the Army Polygraph Course, Ft. Gordon, Ga., where most government examiners are trained. (Editor).

In 53 of the 76 tests, the dominant reaction was supported by reactions in the other two components. In 20 of the 76, there was support from one other component. In 3 of the 76, there was little or no support from either of the other components. (Two of these were Pneumo dominant and one was GSR dominant.)

It is interesting to note that each of the above three subjects confessed to the crime under investigation. Perhaps, the three had intended to confess when they came in for the examination; hence, the threat of discovery would be drastically reduced.

From the study, it is concluded that deceptive subjects usually will respond to all three components in some charts; and in almost all cases, there will be two components showing deceptive patterns.

Attempt by the Subject to Distort the Readings

Thirteen of the seventy-six (seventeen percent) of the deceptive subjects attempted distortion on at least one specific crime chart. Five of sixty-eight (seven percent) of the deceptive subjects attempted distortion on the stimulation chart. A Stimulation chart was not run during eight of the tests.

Relief

In practically all charts, relief followed a deceptive response. The relief was usually a drop in the Cardio pattern and the GSR recording, and an increase in amplitude (recovery) in respiration.

Pneumo Response

Suppression of respiration amplitude, followed by relief, was by far the predominant deceptive pattern in the pneumograph component. It occurred in 71 of the 76 cases (93%).

Ten tests showed holding of breath (apnea) in some charts.

In five tests, a marked change was noted in the inspiration/expiration (I & E) ratio.

Some of the above tests show two or more of these deceptive patterns in the same chart.

Blood Pressure (Volume) Changes

In 48 of the 76 tests (63%), (not individual charts) there was an increase; then, shortly thereafter, a decrease in blood pressure at the point of deception.

In 18 of the 76 (24%), there was a marked increase in blood pressure that was prolonged--sometimes not returning to the base line or not returning until after the next question.

In 10 of the 76 (13%), there was only a slight change or no change at all.

A construction of amplitude was noticeable in most deceptive responses; and during this construction, at times, the diacrotic notch would disappear. A change in the position of the diacrotic notch was not prevalent.

Pulse Rate Change

Only 8 (12%) of the 76 tests indicated a noticeable change in the pulse rate of the deceptive subject.

GSR Response

In 53 of the 76 tests (70%), good or excellent GSR responses were noticeable on some charts in a test series. In 20 additional tests (26%), some GSR response was seen.

In only three (four percent) of the charts was there no discernible GSR response.

This study shows the GSR to be a very excellent supporting component.

Response to the Strong Relevant Question

Since almost all our testing has to do with determining primary guilt, the DI charts studied showed better responses to strong relevants than to weaker ones.

We will probably find in our study of innocent subjects that a weak relevant, such as "Are you deliberately withholding information about the crime?" will evoke a response. As long as we know this, we are not likely to call a test the wrong way. And a question such as this is certainly a good entree into the interrogation of the deceptive subject.

Best Chart

Some of the tests studied showed good reactions on all charts. Selecting the best deceptive chart, we found the first chart to be better in 29 instances; the second chart in 24 instances; and the third chart in 22. One POT chart was better than the specific question tests. (This DI test is unconfirmed.)

The first chart seems to show a little better reaction in most cases; however, we never base a conclusion on the first chart only. In several tests only two charts were run.

Stimulation Test Reaction

In 50 of the 68 (73%) stimulation tests given, there was good to excellent response. In 6 of the 68 (nine percent), there was a fair response. In five tests there was attempted distortion. There was no discernible reaction to the key question in only seven (ten percent) of the tests.

These data point up not only the value of the stimulation tests in determining that we have a responsive subject, but bear out that most deceptive subjects react well to this type of tests.

Announcement of Chart Beginning

Mr. Leonard Harrelson of the Keeler School has been a strong believer that deceptive patterns are shown after the

announcement that the polygraph test (chart) is about to begin. We found only that 41 of the 76 tests (54%) showed a discernible deceptive pattern at that point. In most of these instances, however, the deceptive pattern shown is similar to the deceptive response given to pertinent questions by that particular subject.

Mr. Harrelson may get more reactions at test beginning time than we found (54%). We do not know exactly how Mr. Harrelson makes his announcement that the test is about to start.²

Test Minutes on DI Subjects

Our average test length, from pre-test through interrogation, ran about 3 hours (182 minutes). The breakdown is as follows:

	<u>Average of Six Examiners</u>
Pre-test (interview-question formulation, etc.)	68 minutes
Test (running charts)	58 minutes
Post-test (interrogation)	<u>56 minutes</u> 182 minutes

In 5 of the 76 tests (6.6%), we were restricted (usually by subject's attorney) from any post-test interrogation. If the time of these five tests had been deducted, the post-test averages would have been a little longer, averaging about one hour.

Time Lapse

Time lapse between the date of the crime and the testing of the deceptive subject was from 2 days to 26 months. The

2

Mr. Harrelson is the Director of The Keeler Polygraph Institute in Chicago. The whole Keeler technique differs significantly from the MGQT and ZOC employed by the Postal Inspectors (Editor).

average time lapse was about six months.

We found that the length of time since the crime made little or no difference in the ability to get good responses from the subject.

Confessions and Admissions

Forty-four (58%) of the seventy-six DI subjects confessed or made incriminating admissions to the offense being investigated.

Forty-nine of the seventy-six tested were postal employees; twenty-seven were not. About the same percentage of postal as non-postal confessed.

The confession rate was considerably higher (67%) in FD cases. This was to be expected, since a fixed credit (stamp stock and cash) is assigned to only one person. If that one is short in his credit and is deceptive on his charts, he does not feel the psychological "security of the group" as would one of say, seven employees in a registry room where registers were missing and each of the seven had similar access.

This 67 percent or 2 out of 3 confessions in fixed credit shortages should, perhaps, be stressed, since many times a shortage case cannot be successfully concluded without a confession. Although polygraph evidence is not generally accepted in the courts, we can testify to anything a person voluntarily tells us, whether it be during a polygraph test or not.

Retests

Sixteen of the seventy-six (seventeen percent) of the subjects were retested as DI. Only four (twenty-five percent) of these confessed. Even though this is certainly a small population upon which to base a conclusion, it may point up that if we pretty well feel that the subject is deceptive (not inconclusive) initially, he should be interrogated at that time.

Of course, it is known that some subjects make excuses to leave for one reason or another during interrogation, and

our hope of getting a chance for further interrogation is through suggesting he come back for retest.

Peak of Tension Tests

Only 15 (20%) of the 76 DI subjects were given Peak of Tension tests. Of these 15, 6 subjects (40%) later confessed; 9 did not.

Best Pneumograph Recording - Upper or Lower

In 60 of the 76 tests, Double-Pneumo recordings were made. In 7 (11%) of these tests, a good deceptive response was shown in only one of the respiration measuring components. In five instances, no response was discernible in the upper Pneumo, while indicated in the lower. In two instances, the upper was the only respiratory component monitoring a reaction. Based on these findings, we conclude that the Double-Pneumo is better only 1 in 30 times than a Single Pneumo component attached across the abdomen.

Polygraph Data Sheet

On the reverse of the Polygraph Data Sheet, 16 questions are listed to be put, as applicable, to the subject during pre-test interview.

These questions were derived to fit our needs from the very similar questions Mr. John Reid uses during his testing. Mr. Reid uses these questions as a behavioral study of his examinees.

It was found that our examiners do not complete these questions (the answer of the subject) as fully as they should in many instances. These answers provide us with some good insight about the examinee and many times will suggest avenues of interrogation. And, of course, they provide us with an easy entrance into the control question area we wish to pursue.

Question No. 11, "How do you think you will make out on this polygraph test?" was found, during our review, to be a particularly good question to provide us with information about the subject.

Ten of the DI subjects (eighteen percent) answered Question No. 11 with a very negative attitude about the polygraph test.

Some of the answers those ten gave were:

I hope I do good (or well).
I do not know; lousy, I guess.
I am worried it will come out against me.
I do not believe in these things, so I do not think
I will make out well.
I will probably fail the test.

It is very significant that each of the ten subjects who answered in words similar to those statements above confessed to the examiner that they committed the crime under investigation.

Three answered simply, "I do not know." One confessed; two did not.

Persons rated DI, but who made positive answers to Question No. 11, such as, "I am not worried - I did not take the money;" or, "I will show I am not lying," did not confess.

A study of confirmed NDI charts should help solidify these conclusions about the individual with the negative attitude.

We believe our study showed our polygraph program to be on a good sound footing and progressing satisfactorily. Review of the charts indicated that all examiners are following standardized techniques which makes possible a good quality control program at the National level.

COURT USE OF THE POLYGRAPH IN PROBATION PROGRAMS

By

Lieutenant Lloyd Riegel
Oregon State Police

Some months ago I entered into a conversation with John C. Beatty, Judge Circuit Court System, Multnomah County and Mr. Robert Gardner, Chief Deputy District Attorney, Multnomah County. This conversation opened up a new field of polygraph to me, a field that can live to haunt you from time to time, as there are repeated examinations given over an extended period of time.

Judge Beatty explained his concern relating to probationers. He related that He had about five hundred such people on probation at the time, also other courts had people on probation, making a case load for the probation officer almost prohibitive of close supervision. He described these people as having demonstrated an inability to refrain from specific unlawful acts. Many are prior offenders having served time in various types of institutions and show no degree of success at rehabilitation.

It was the judge's question, "Do you believe some sort of a polygraph program can be set up to assist this probationer to make a success of his probation, also to give the probation officer as well as the court some definite opinion whether or not this man is abiding by the conditions of his probation, actively seeking work and reporting the truth in both oral and written reports to his probation officer?" The probationers to be placed on the program would be limited to a very special group, those who have been convicted of serious crimes, posing a danger to the public as well as themselves, and are unable to handle a probation without some sort of a special monitoring device. The polygraph would be that monitoring device. Without this program these probationers would have been sentenced to confinement in some institution. With consideration again given to the fact that the probation officer has very little time to verify the oral and written report, as a result accurate information is sometimes lacking upon which to base a decision.

During my polygraph experience I had not been confronted with this type of examination, nor had I read of any such a program. There had been some mention of a probation-type examination being carried out in the State of Washington by Mr. John Jenkins and Richard Nesary during the Northwest Polygraph Examiners Seminar in Everett, Washington. Contact was made with both men and their program discussed. It was determined our proposed program differed somewhat from either of their programs; however, both dealt with men on probation or parole. The information obtained was related to Judge Beatty along with some reading material I was able to find telling of probationers and their problems. After several meetings it was clear that considerable planning was needed to make this type of program a success.

John Jenkins and Richard Nesary had a presentation at the 1973 Northwest Polygraph Examiners Seminar, and Judge Beatty attended this portion of the seminar and had an opportunity to talk with both men. Using their experience, it was felt that one of the most important parts of the program was to keep the probationer ever conscious of his pending examination and his responsibility to keep the appointment.

People in various fields in law enforcement and human behavior were called upon to aid in forming guidelines for the program. Mr. James Hennings and Mr. Donald Varnes of the Public Defenders Office were among the first to be consulted. Their concern dealt with safeguard of rights and recourse available to those with deceptive charts facing revocation as a result thereof. Constitutionality of the program was also raised, as the convicted stands before the court with a choice, either participate in the polygraph program or face confinement. Other authoritative professional people were entered into the framework of a panel set up to formulate the program, these being Dr. Stanley Abrams, clinical psychologist and polygraph examiner; Mr. Robert Gardner, District Attorney's Office; Professor Tony Freeman, sociologist; Mr. John Stuart, State of Oregon Department of Probation; Dr. Robert Ransmeier, psychologist; Judge John C. Beatty, and myself, State Police Lieutenant and polygraph examiner.

During the proceeding meetings many questions were brought up dealing with various phases of the program. The public

defenders office showed considerable concern relative to how the polygraph charts and the examiner's opinion might be used in a revocation proceeding. Guidelines were set up to insure adequate protection for the man coming before the court on a revocation hearing. These guidelines are:

1. As a safeguard against erroneous results in polygraph examinations, the following factors are suggested when deceptive answers on questions material to the continuance of probation are shown on a periodic examination:

(a) When a deceptive report is received, the defense attorney will be furnished promptly with a copy of the report, and the matter will be set for a revocation hearing. At the hearing, the court will receive the polygraph results plus any other relevant matters on the defendant's activities. If the defendant denies deception and so requests, he will be entitled to have at State expense a second polygraph examination by an alternate examiner which will also be received in evidence at such revocation hearing.

(b) We can also consider providing, if desired, that where a defendant denies deception and where such a second polygraph examination has been conducted and also indicates deception, if defense counsel requests, we can provide that the defendant be given a psychiatric examination should defendant's counsel believe that psychiatric or psychological factors are interfering with accurate test results.

It seems that some such procedures as these will be rarely used, but will meet the concern that has been expressed.

2. We probably can provide that the defendant can discontinue his polygraph examination to consult with his attorney if he later, but promptly, successfully completes it. We should not encourage fragmentation of the examination for administrative reasons.

3. It has been suggested as a guideline that the type of probationer be one whom the court would sentence to prison for the protection of the community because the probationer has demonstrated an inability to refrain from specific unlawful activity. Such individuals should also be persons who, in the judgment of the court and counsel, appear likely to

succeed on a probationary program if that person's behavior can be modified through polygraphic control. In general, we should confine the program to felonies and not limit it to felonies with previous felony records. We may wish to include young adults with lengthy juvenile records.

Giving consideration to the examiner, several problems arose, particularly in the case of a police officer as examiner. During a pre-test or post-test interview, the examinee comes forth with an admission of a felony-type crime. What position is the police officer examiner in? As a police officer he is duty-bound to take some action, at least a report to the department with jurisdiction. Is the admission he has just received valid, or will it be considered as having come from a forced type situation, as the probationer had either to take the examination, or sentence execution and confinement? Would this admission be useable by another department of jurisdiction during a prosecution, or at least a basis upon which to launch an investigation?

Considerable thought and re-writing was done by Judge Beatty before a stipulation was drawn setting out each condition of the agreement. This stipulation is entered into between the court, the probationer and his counsel. (See Example #1).

Examinations were scheduled. James Stuart was consulted as to probation regulations and to supply the background information. Each probationer would be different, some committed burglaries, others robbery, narcotics sale and use, or prostitution. A searching type examination was set up covering almost any violation of probation. The first two questions are irrelevant followed by four relevant questions alternating between general probation violations and the specific crime for which this examinee is on probation. Example:

1. (irrelevant)
2. (irrelevant)
3. Have you frequented places where drugs are sold since your probation?
4. Have you worked steadily at your job since your probation?
5. Have you purchased any illegal drug since your probation?

6. Have you been completely truthful with your probation officer?
7. Have you used any illegal drug since your probation? (The name of the drug used by this examinee can well be used.)
8. Have you left the state since your probation to engage in any illegal activity?
9. Have you falsified any of the reports submitted to your probation officer?
10. Have you been engaged in any form of illegal activity since your probation?

There are many alternates to be used in the question format depending upon the major issue. This type of chart is run twice, separated with a stimulation test. If deceptive reaction is sufficiently noted to any one or group of questions, then a general series type examination is developed around that question or series of questions. There is almost consistently a slight deceptive reaction to that section of the examination which covers the main issue for this probationer. However, in many cases it can be explained during the formation of specific questions in the general series examination, sometimes leading to an admission. In others, the deceptive reaction is cleared up during the general series examination; but in any case the deceptive reaction gets more pronounced or becomes less pronounced during the general series examination.

As an examiner I was somewhat concerned just how to handle this type of examination, mainly the pre-test and post-test interview. It was important to have this examinee return time after time for additional examinations. Having some idea of the type of person to be dealt with and the general attitude of probationers, just how far could the examiner go in obtaining all the information and still insure this man would be back for additional examinations. The entire program could be destroyed easily. Failure to appear or refusal to take the examination would probably be basis for revocation. Revocation would then mean confinement, and confinement is not the result sought. Confinement could have been ordered at the finding of guilt. After the first one or two examinations, it became apparent there must be a feeling of firmness and control, but flavored with a feeling of fairness and trust. In all the examinations given there has not been one request for special favor or plea for another chance. There are two very distinctive

types of attitude. One is quite resentful, the other is receptive and interested in the program. Throughout the series of examinations given these attitudes have remained. It must be said, however, the receptive attitude far outnumbers the resentful. Eighteen probationers have been actively engaged in the program, two of which are quite resentful. One of those two came for his second examination and left this little note: "Lt. Riegel -- Under advisement from my attorney, I am suspending your use of your polygraph on my person. Pending further court talks, so as to protect, myself, my rights and my sanity. Giving control of my well being to a machine & operator is naturally of great concern to me. Have a good day sir." The other challenged the program and took the case before the appellate court. (See Example #2.)

Some concern became apparent after the first examination as to what were the rights of the probationer with respect to further examinations. An advice of rights and waiver was developed by Mr. Gardner. This is read and discussed each time before the examination. (See Example #3.)

As previously mentioned, there have been 18 active participants in the program. Several additional have been assigned to the program but are finishing county jail time or forest camp program and are not available for examination. Evaluation of this initial 18 shows two very successful. One of these was a several-time loser with a narcotic problem, the other a narcotic with a problem involving both using and selling. Two failures have narcotics problems. Eight have been revoked for various other reasons. No probationer has been revoked on deception alone. Other factors have entered into the revocation; however, in every case the probationer revoked has shown deception on all charts of his examination. Six are working at the program. Each time there is some deceptive reaction, enough not to call them clean, but not sufficient to revoke their probation. The deceptive reaction is becoming less with each examination, and the attitude is somewhat better with each examination. It must be remembered, these are hard-core probationers, having failed on previous attempts, so any small gain is to be considered somewhat a mark of success.

It is too early to draw any conclusions regarding the program. The committee holds meetings quarterly to evaluate

the success or failure of the program. The committee will study the program for one year and at that time make some evaluation relative to its effectiveness and future worth as a tool to assist the court and probation department in their effort to administer justice and bring the probationer into usefulness in society.

EXAMPLE #1.

IN THE CIRCUIT COURT OF THE STATE OF OREGON

FOR THE COUNTY OF MULTNOMAH

STATE OF OREGON,)	
Plaintiff,	)	No. C- _____
)	
vs.	)	DA _____
_____)	
Defendant.	)	STIPULATION
)	

Pursuant to the order issued on _____, by the Honorable John C. Beatty, Jr., placing the defendant on probation or continuing defendant on probation, the court having found that but for an effective method of insuring defendant's compliance with the terms of probation to insure the safety of the community and his own security and rehabilitation, it would be essential to impose a long period of incarceration; and the court having suspended imposition or execution of sentence upon the condition that defendant stipulate to a polygraph examination one each 90 days to determine if he has violated the terms of his probation, defendant hereby enters into the following stipulation with the State of Oregon:

1. That the defendant will take a polygraph examination to be administered by or under the supervision of Lt. Lloyd Riegel, Oregon State Police.

2. That the defendant shall have a conference and polygraph explanation with Lt. Riegel within thirty days of this order and shall take the polygraph examination at approximate 90-day intervals, the first beginning 90 days from the

(form revised 12/20/73)

date of this order. The interval between examinations may be extended in the discretion of Lt. Riegel and the probation officer.

3. That defendant's probation officer will fix the date of the first conference with Lt. Riegel, and defendant's probation officer will likewise fix the time of subsequent polygraph examinations. Urinalysis may be required at any time.

4. That prior to each interview and examination, the examiner will advise defendant of his rights in accordance with the form which is attached hereto. That the polygraph examination concerning criminal activity will focus on whether the defendant has committed any crime of _____

since the commencement of the probationary period pursuant to this order. The results of such examination, including the pre-examination and post-examination interview, will be forwarded to the court. Lt. Riegel may require and schedule a re-examination, subject to approval of the court, if in his judgment some extraneous factor has impaired an examination. The court will notify defense counsel that such examination has been scheduled.

5. When a deceptive report is received, the court will set the matter for a revocation hearing and promptly forward a copy of the report to defense counsel. At the hearing, the court will consider the examination materials plus any other relevant material. If defendant denies deception and so requests, he will be entitled to have a second polygraph examination at State expense by an alternate examiner which will also be received in evidence at the revocation hearing. If the second examination indicates deception and if defense counsel so requests, the court will order a psychiatric examination, provided defense counsel believes that psychiatric or psychological factors may be interfering with accurate test results.

6. In the event the defendant fails to take a polygraph examination as stipulated, his failure shall be sufficient grounds for revocation of probation and letting the sentence be carried into effect.

7. The results of these interviews and polygraph examinations will be evidence in any proceeding in the above case

and in determining defendant's probationary status. Such results themselves shall not be admissible as evidence in any proceedings in any other case without defendant's consent. Such results shall not preclude prosecution of the defendant for any offense revealed by them upon evidence other than results of the polygraph examination, irrespective of whether the investigation was based upon or prompted by information revealed by the examination.

I CERTIFY THAT THE DEFENDANT HAS
READ OR HAS HAD READ TO HIM IN
FULL THIS STIPULATION BEFORE
SIGNING IT AND THAT HIS SIGNATURE
WAS EXECUTED IN MY PRESENCE.

Attorney for Defendant

Defendant

APPROVED:

Deputy District Attorney

APPROVED:

CIRCUIT JUDGE

EXAMPLE #2.

IN THE COURT OF APPEALS OF THE STATE OF OREGON

State of Oregon,

v.

(No. C 73-07-2198 Cr)

Respondent,

Rose Wilson,

Appellant.

* * * * *

Appeal from Circuit Court, Multnomah County.

John C. Beatty, Jr., Judge.

Argued and submitted April 17, 1974.

J. Marvin Kuhn, Deputy Public Defender, Salem, argued the cause for appellant. With him on the brief was Gary D. Babcock, Public Defender, Salem.

Scott McAlister, Assistant Attorney General, Salem, argued the cause for respondent. With him on the brief were Lee Johnson, Attorney General, and W. Michael Gillette, Solicitor General, Salem.

Before Schwab, Chief Judge, and Thornton and Tanzer, Judges.

THORNTON, J.

Affirmed.

(Filed Court of Appeals
May 13, 1974
State Court Administrator
By _____ Deputy)

THORNTON, J.

Defendant was convicted of the crime of criminal activity in drugs, namely, furnishing heroin. ORS 167.207. The trial judge suspended imposition of sentence and placed defendant on probation for a period of five years, subject to certain express conditions. Defendant, for the first time on this appeal, objects to the condition

" . . . (1) that should she (defendant) be found eligible by Lt. Riegel, she comply with the polygraph stipulation agreement entered into on this date"

Defendant does not contest the fact that she agreed to, and executed, the polygraph stipulation; however, she now argues that the condition of probation which requires her to comply with this stipulation is an unconstitutional infringement upon her Fifth Amendment right against self-incrimination.

Consequently defendant argues that this condition of her probation is invalid and asks this court to modify the terms of her probation so as to abrogate this condition. For the reasons which follow we must deny defendant's request.

The condition to which defendant now objects required her to submit to a polygraph examination every 90 days. The results of the examination can be used as evidence in further proceedings in this case and in determining defendant's probationary status; however the results cannot be used in any other case without defendant's consent. The stipulation further provided that failure to submit to the examination, as required, is a ground for revoking defendant's probation.

In State v. Bennett, 98 Adv Sh 1895, ____ or App ____, ____ P2d ____ (1974), the defendant executed a stipulation by which he agreed to take a polygraph examination and further agreed that the results of the examination would be admissible at his trial. We declined to consider the question of the admissibility, holding that defendant's execution of the stipulation was an express waiver of any objection to admissibility. We said:

" . . . To allow a litigant to challenge evidence received pursuant to such a written stipulation would in reality be tantamount to a finding of incompetence of counsel"
98 Adv Sh at 1898.

Therefore, since defendant agreed to the polygraph stipulation, we do not reach the constitutional issue she now raises. State v. Bennett, supra; see also, State v. Ross, 7 Wash App 62, 497 P2d 1343, Sup Ct review denied (1972); State v Chambers, 104 Ariz 247, 451 P2d 27 (1969); State v. Valdez, 91 Ariz 274, 371 P2d 894 (1962).

Defendant further argues that she did not freely and voluntarily enter into the polygraph stipulation. Her argument is that a choice between a lengthy period of incarceration and a waiver of her Fifth Amendment rights - execution of the polygraph stipulation - is no choice at all. We do not find that a choice such as faced defendant in this case vitiates her waiver.

In North Carolina V. Alford, 400 US 25, 91 S Ct 160, 27 L Ed 2d 162 (1970), the defendant pleaded guilty to second degree murder solely to avoid the death penalty. The Supreme Court said:

" . . . That he would not have pleaded except for the opportunity to limit the possible penalty does not necessarily demonstrate that the plea of guilty was not the produce of a free and rational choice, especially where the defendant was represented by competent counsel whose advice was that the plea would be to the defendant's advantage" 400 US at 31.

We conclude that there is no evidence on this record other than that defendant voluntarily and freely executed the polygraph stipulation. Our conclusion is further strengthened by the fact that defendant did not object to the condition at the time it was imposed on November 8, 1973, nor even when it was suggested by the trial judge at an earlier hearing on October 30.

See also, Chaffin v. Stynchcombe, 412 US 17, 93 S Ct 1977, 36 L Ed 2d 714 (1973); Brady v. United States, 397 US 742, 90 S Ct 1463, 25 L Ed 2d 747 (1970).

Affirmed.

EXAMPLE #3.

POLYGRAPH EXAMINATION AS A CONDITION OF PROBATION

ADVICE OF RIGHTS AND WAIVER

I, _____, state that
(Defendant)
_____ has advised me of the following
(Examiner)
rights:

1. That I have the right to remain silent and the right to refuse to submit to this polygraph examination. I do, however, understand that my refusal either to take the polygraph examination or to cooperate with the examiner may be sufficient grounds, in and of themselves, for revocation of my probation.

2. That although neither any statements made by me during this polygraph examination nor the results of this polygraph examination will be admissible in any criminal proceeding other than in a hearing to determine whether my current probation should be revoked, I do understand that any statements made by me during this polygraph examination may be reported by the examiner to appropriate police agencies. I, therefore, do understand that what I say during this polygraph examination may cause an investigation to be made of my conduct and I further understand that should that investigation disclose independent evidence of my involvement in a crime, I could be charged and prosecuted for that crime.

3. That I have the right to consult with an attorney prior to making any statement or to taking the polygraph examination. I understand that if I desire an attorney and cannot afford one, an attorney will be appointed for me at public expense.

4. That I have the right to discontinue the polygraph examination at any time, although I understand that such action on my part may, in and of itself, be grounds for revocation of my probation unless I successfully complete the examination within 48 hours.

5. I understand that any statements made to the Examiner, as well as the results of the polygraph examination, will be forwarded to the sentencing Judge and may be considered by him in making his decision as to whether to continue my probation or to revoke my probation.

I have read the above Advice of Rights and I have also read the stipulation that I have previously signed. I understand all of my rights and I understand the matters contained in the stipulation. I am willing to take the polygraph examination, which will be administered by _____ (Examiner).

Dated this _____ day of _____, 19__.

(Defendant's Signature) Date: _____

(Examiner's Signature). Date: _____

CONGRESSIONAL HEARINGS ON THE POLYGRAPH

DEFENSE DEPARTMENT STATEMENT ON THE POLYGRAPH*

By

David O. Cooke
Deputy Assistant Secretary of Defense
(Administration)

Mr. Chairman, I am pleased to appear again before your Committee to advise you of the developments in the use of the polygraph by the Department of Defense since your Committee report on the subject in September 1966.

That report characterized DoD Directive 5210.48, "The Conduct of Polygraph Examinations and the Selection, Training and Supervision of DoD Polygraph Examiners" as being "a comprehensive directive" which "represented the first step taken by any Federal agency to curtail the widespread use of the so-called lie detector." The report observed that the Directive's provisions "are in harmony with most of the recommendations made by the Committee."

There have been no changes to the Directive itself since your Committee issued its report. But I am pleased to be able to describe to you subsequent developments which treat some of the concerns expressed by your Committee in its report.

Your 1966 report stated "The Department of Defense Directive has strongly curtailed the use of the polygraph in criminal cases, as recommended by the Committee. But it still permits the everyday use of polygraphs for preemployment screening - an area which hardly may be characterized as falling

*The statement (paper) above was delivered before The Foreign Operations and Government Subcommittee of The Committee on Government Operations, U. S. House of Representatives, on June 5, 1974.

within the definition of the most serious national security cases."

The Civil Service Commission has limited the use of the polygraph for preemployment screening of prospective competitive service employees to those agencies which have a highly sensitive intelligence or counterintelligence mission directly affecting national security and then only with the express approval of the Chairman of the Civil Service Commission. The Department has sought and received the approval of the Chairman of the Civil Service Commission for the use of polygraph in screening ten Defense Intelligence Agency competitive service employees who are detailed to work with certain Central Intelligence Agency activities. No applicants for competitive service positions in the whole Department of Defense are currently being screened by the use of polygraph examinations.

In October 1972, the Department barred the use of the polygraph as a screening or selection device or as a condition of employment for all DoD employees -- competitive service or excepted service -- aside from those assigned to the National Security Agency.

Another area of concern expressed in the 1966 Committee report related to polygraph examiner qualifications. The report recognized that DoD Directive 5210.48 established high qualifications but noted that it contained a grandfather clause which permitted examiners on board in 1965 to continue even if they did not have the training and education required under the revised 1965 standards to do the job. This problem has been resolved by the passage of time. It is my understanding that there is only one such polygraph examiner remaining on Defense rolls. He has had refresher training as late as December 1973. All the rest of our 134 examiners fully meet the rigorous qualification standards. Incidentally, you should be aware that the total number of examiners in DoD has been reduced by some 296 since 1966.

Your 1966 report noted that the Directive provides "that appropriate supervisory officials shall review each record of a polygraph examination." Our current procedures include a 100% quality control by highly qualified senior supervisory examiners. Let me assure you this is not a rubber stamp operation. In each case a supervisor must make an independent

review of the results. He must agree with the original examiner's conclusion before the results are certified.

Further research to determine definitively the validity of the polygraph has proceeded. Four separate research projects have been conducted under the auspices of DoD Components. In general, these projects conclude that the polygraph has a high degree of reliability. Although the DoD Joint Services Group on Polygraph Research, whose efforts were underway at the time of your 1966 Committee report, issued a report in 1968 which did not fully support this conclusion, this discrepancy is largely because the Joint Services Group did not complete its proposed validation study.

Mr. Chairman, you have also inquired about other devices that are being claimed to have similar capabilities as polygraphs. The Department purchased, solely for test and evaluation purposes, 5 Psychological Stress Evaluators. Our evaluations indicated that the Psychological Stress Evaluator was not of sufficient reliability in its present state of development. The 5 sets have either been dismantled or turned in for surplus disposal. The DoD possesses no other types of devices in this category.

You also requested information regarding the nature and scope of the polygraph training program being given at the U.S. Army Military Police School at Fort Gordon. I have submitted a detailed statement of the program for the record and also have with me an expert witness to describe the program. Consistent with our continued effort to assure that DoD polygraph examiners meet the highest professional standards it is significant to note that the original training period of 8 weeks has now been extended to 14 weeks. In addition a graduate of the school must serve an internship of from 6 months to a year before he is certified to conduct polygraph examinations by himself. Further, the school provides a 3 week refresher course for the practicing polygraph examiner.

Finally, Mr. Chairman, as you asked, we have furnished for the record an update of the material previously furnished to the General Accounting Office in response to the October 1973 questionnaire it undertook at your request.

This completes my statement. We would welcome any questions you may have.

CLEVE BACKSTER'S PRESENTATION TO CONGRESSIONAL COMMITTEE*

By

Cleve Backster
Director
Backster School of Lie Detection

I would first like to thank the Foreign Operations and Government Information Subcommittee for the invitation to continue my participation in their effort to further develop a body of knowledge of conventional polygraph technique and instrumentation. I also appreciate the opportunity to comment on other so-called "lie detection" methods currently being promoted as having similar capabilities.

In this preliminary statement, I wish to attempt to briefly review some of the basic considerations involved in the more conventional detection of deception processes. I do so wishing to avoid possible confusion in a subsequent comparison of techniques.

Of utmost importance in a polygraph examination is the psycho-physiological chain of events occurring in response to a strong relevant question. For example, during deception:

- (1) Subject answers the polygraph examiner's relevant question with a lie.
- (2) The lie stimulates the fear of detection of deception.
- (3) The fear of the detection of deception stimulates a variety of psycho-physiological changes within the Subject's body.
- (4) Certain of these psycho-physiological changes are recorded upon a moving chart.

*The statement (paper) above was delivered before the Foreign Operations and Government Subcommittee of The Committee on Government Operations, U. S. House of Representatives, on June 5, 1974.

- (5) The polygraph examiner then evaluates the relevant question reaction.

The procedure stated, thus far, brings up an important consideration. Can the polygraph examiner safely identify one emotion from another by merely looking at a relevant question reaction on a polygraph chart? It is my belief that the answer is that he cannot--with any degree of consistency.

It is extremely important that this problem be overcome by the use of a carefully structured procedure that is designed to allow the examiner to isolate not only "fear" as the emotion involved, but also to distinguish "fear of the detection of deception" from the other varieties of "fear".

The principle solution in most modern polygraph techniques, regardless of minor variations, is the use of a carefully structured and reviewed control question procedure. Successful use of such a control question procedure embraces the concept which I have termed "anti-climax dampening". Basically this involves the psychological premise that an individual will gear his attentiveness and receptivity to the "greater-threat-to-his-well-being". This is further based on the psychological principle that the Subject responds to this threat by preparation for a "fight-flight-holding" action. As a result of careful utilization of this principle, an isolated reaction on the polygraph chart cannot be interpreted as "deception", unless it is accompanied by a comparative lack of reaction on a near-by control question being used.

This brings up the basic classification of questions used as "specific test" components. Each question type should fall generally within one of the following classifications:

- (1) "non-lie" questions
- (2) "possible-lie" questions
- (3) "Probable-lie" questions
- (4) "Known-lie" questions

Techniques, in general, use throughout the polygraph field, primarily make use of two of these question categories.

The strong "relevant" question falls within the "possible-lie" question classification. The "control" question falls within the "probable-lie" question classification. This type of question usually embraces a non-competitive but still stigmatic question toward which the Subject's concern will be directed only if he is being truthful to the nearby "relevant" question. Also used within most techniques is the "neutral" question which falls within the "non-lie" question classification. "Known-lie" questions depend on verified items of information unrelated to the relevant issue and are best avoided.

It should be noted that all the questions used are reviewed word-for-word, in advance of the beginning of the chart concerned.

Five fundamental steps during the overall polygraph examination may be stated as follows:

- (1) The obtaining of case information.
- (2) The selection of the "target", which is the singular relevant issue first to be pursued.
- (3) The formulation of a carefully structured polygraph test.
- (4) The administering of such a polygraph test.
- (5) The evaluation of all charts concerning the same "target" issue -- thus leading to a determination of (a) truth, (b) deception or (c) an inconclusive result.

In chart interpretation, it is important that a significant number of independent evaluations be made of the relevant questions. One technique involves asking two strong "relevant" questions on each chart, using the following as a basic rule: If Subject is attempting deception to one of these two "relevant" questions, he should be attempting deception to the other. Thus three separate evaluations are provided from each of the two question locations -- one evaluation for the breathing tracing, one evaluation for the cardio tracing and one evaluation for the galvanic skin response tracing. This

results in six separate and independent interpretations per chart. The generally accepted minimum number of charts for a particular "relevant" target is two, this totaling twelve separate evaluations. Frequently, three charts are utilized thereby presenting eighteen separate opportunities to evaluate the relevant questions. The consistency of reaction, of lack-of-reaction, assures minimal risk of the possible occurrence of a reaction unrelated to psycho-physiological principles embraced by the test structure.

I have not personally made use of "voice-modulation-analysis" devices to date. Although I am therefore in no position to comment on the questions of validity and reliability, I do believe that certain potential deficiencies can be confronted, specifically as related to minimally adequate technique structures.

In making reference to the previously enumerated "psycho-physiological chain of events" -- during the asking of a relevant question, I have read no material nor have I heard any arguments, as related to "voice-modulation-analysis", that in any manner circumvent the need for a carefully structured technique. Without such a structured approach there seem to be a number of alternative reasons why a person's voice may modulate because of emotional considerations having little or nothing to do with the fear of detection of deception.

In addition basically sound "scientific methodology" approaches would seem to dictate the simultaneous use of the proposed innovation along with those indices in conventional use.

If the advocates of the "voice-modulation-analysis" equipment maintain that they are in agreement with the need for a carefully structured technique, I fail to understand how its instruction can be accomplished in a three day training course which does not even require prior polygraph training or experience as a pre-requisite for attendance.

Aside from the ethical implications, as related to the surreptitiously administered "voice-modulation-analysis" test -- Which are certainly profound -- I must seriously question the possibility of even a minimal adequate technique structure, under such conditions.

I certainly must apologize for including so many considerations in such a brief preliminary statement. If it is the wish of this Subcommittee, I will be glad to expand upon any of the points involved.

* * * * *

ANSWER KEY TO POLYGRAPH REVIEW ON CHART INTERPRETATION:

1. b. They are most often on the expiration or exhalation stroke, but occasionally are observed on the inspiration or inhalation stroke.
2. c. The pen travels downward where there is an increase in resistance. It may do so on both truthful and untruthful subjects.
3. d. Nothing is better than to have responses in all three tracings which verify each other.
4. d. The intensity of subject's emotions is the main factor in determining how large a response will be.
5. a. Changes in emotional tone will result in a change in the tracing.
6. False. It is just the opposite.
7. True. This is the cause.
8. False. It very well may indicate deception with some subjects.
9. True. This is one of the deceptive criteria for the pneumo pattern.
10. False. It may also be a relief or a distortion.

CONGRESSIONAL HEARINGS ON THE POLYGRAPH

RECENT LEGAL DECISIONS

By

Charles F. Marino
Attorney at Law

Following are a list of the more recent court decisions admitting the results of polygraph tests into evidence and supplements those cases set forth in "The Polygraph Technique", Appendix 3, entitled "The Polygraph and the Courts" (pages 46-51):

A. State Courts

1. Commonwealth of Massachusetts v. Juvenile (BR-15,322) decided by the Massachusetts Supreme Court in June, 1974. The Court recognized that substantial advances have been made in the field of polygraphy since 1963 when the Court rejected the admission of such evidence in Commonwealth v. Fatalo, 346 Mass. 266 (1963) and opened the door for the admission of polygraph examination results in criminal trials under certain circumstances.
2. State of Wisconsin v. Stanislawski, 216 N.W.2d 8 (1974). In another recent decision (April 2, 1974), the Supreme Court of Wisconsin departed from its prior decision in State v. Bohner, 210 Wis. 651, 246 N.W. 314 (1933) wherein it had rejected polygraph evidence for any purpose and under any circumstances. In the Stanislawski case, the Court stated:

"We find it clear that, during the same forty or fifty years, polygraph tests have moved from the 'twilight zone' of Frye to such degree of standing and scientific recognition that unconditional rejection of

expert testimony based on polygraph testing is no longer indicated."

The Supreme Court of Wisconsin there adopted the conditions for the admission of the results of polygraph examinations previously adopted by the Arizona Supreme Court in State v. Valdez, 91 Ariz. 274, 371 P.2d 894 (1962).

3. State of New Mexico v. Alderete, 521 P.2d 138 (1974). Also, in a recent decision (February 27, 1974), the Court of Appeals of New Mexico affirmed a trial court's decision which did not admit the results of a polygraph examination into evidence where the polygraphist failed to produce his polygraph records in court. However, Chief Judge Wood of the Court found that upon a proper foundation being laid, the admission of the test results into evidence is within the discretion of the trial court. In a specially concurring opinion, Judge Lopez stated:

"I fully concur in the opinion of Chief Judge Wood. I wish to add that I feel that polygraph testing is potentially of great value to the judicial processes of this state. When we are presented with a proper record meeting the requirements set forth in Judge Wood's opinion, I would hold this type of evidence admissible. I encourage counsel in future cases to develop such a record."

4. State of Nebraska v. Sanchell, 216 N.W.2d 504 (1974). In this case (which was decided on March 21, 1974), the Supreme Court of Nebraska held that the agreement of a prosecutor that a defendant would not be prosecuted if he passed a polygraph examination was not enforceable absent the trial court's approval. However, the Court there noted:

"We do not want to do anything to discourage the use of polygraph as it is a

useful tool in police and prosecutorial work and no doubt results in many determinations not to prosecute."

5. State of Ohio v. Donna Sonnie, No. 73 CR 100, June 20, 1974. The Court of Common Pleas for Lake County, Ohio, ruled that testimony as to the results of two polygraph tests taken by the defendant would be admitted "as an aid to the jury in arriving at credibility of witnesses and determine guilt or innocence." The Court conditioned its ruling on the defendant taking an additional polygraph examination by an examiner selected by the prosecuting attorney subject to the approval of the Court.
6. State of Florida v. George Curtis, No. 70-5585, January 31, 1973. The Circuit Court of the Eleventh Judicial Circuit for Dade County, Florida allowed a Defense Motion for the admissibility of the results of two polygraph examinations, one given by an examiner of the defendant's selection and the other by a court appointed examiner. The court stated that in future cases, polygraph opinions would be admitted in the event the defendant, through his counsel, first requested the State to stipulate to a polygraph test and its results, and if the State rejects the stipulation, the defendant may apply to the court, who will appoint one or more qualified examiners to conduct a polygraph examination subject to certain conditions.

B. Federal Courts

In addition to United States v. Ridling, 350 F. Supp. 90 (E.D. Mich. 1972), two other federal district courts have recently admitted the results of a polygraph examination into evidence, namely United States v. Hart, 344 F. Supp. 522 (E.D. N.Y. 1971) and United States v. Dioguardi, Crim. No. 72-1102 (E.D. N.Y. 1972) which was not officially reported.

In the Dioguardi case, a defendant charged with having falsified a loan application claimed that the

handwriting on the application was not his. Although another man came forward claiming to be the guilty party, the government alleged that his actions were essentially collusive. The defense attempted to introduce the results of polygraph tests on both the defendant and the man who claimed to have committed the crime, but the government objected. In an evidentiary hearing, the polygraph expert for the Manhattan District Attorney's office testified that in his experience the polygraph was more reliable than either handwriting or ballistic evidence, both of which are admissible at trial. Judge Weinstein of the Eastern District of New York, a member of the Advisory Committee on the Federal Rules of Evidence, then ruled that if the two men would agree to submit to a test by a court appointed expert, both the latter's testimony and the testimony of the defendant's expert would be admissible before the jury at trial. The results of the court-appointed expert's test and the defendant's test were apparently the same, and the government agreed to dismiss the indictment.

In the Hart case, two former federal narcotics agents were accused of soliciting bribes. The principal government witness, a confessed narcotics dealer, revealed during cross-examination that he had taken a lie detector test at the request of the government. When the tests indicated he was lying, the court ordered that the results be disclosed to the jury. Without holding a prior evidentiary hearing, Judge Judd ruled that the government should be prepared to show why it administered the test to the witness and why it subsequently disregarded the results. The government subsequently dismissed the indictment.

The decision of Barrington D. Parker in United States v. Zeiger, 350 F. Supp. 685 (Dist. of Col. 1972) to receive the results of a polygraph examination into evidence was reversed in a per curiam order by the Court of Appeals in 475 F.2d 1280 (1972). However, in an address before the Fourth Annual National Workshop on Practical Polygraph Procedures, Delta College, Michigan, Judge Parker viewed the matter as follows:

"In 1971 Judge Earl Larson of the U.S. District Court

of Minnesota in a post trial motion for reduction of sentence filed on behalf of a defendant convicted of tax fraud was concerned with the "criminal intent" of the defendant. His counsel was permitted - over the objection of the district attorney - to present testimony of a polygraph expert - who testified at some length and in some detail as to the procedure employed.

In 1972 Judge Jack Weinstein of the Eastern District of New York in an unreported decision - ruled in an evidentiary hearing to admit the testimony of two polygraph experts - one court appointed - before the jury at trial.

The defendant was charged with falsification of a loan application, but a 3rd party admitted to the charge. The prosecuting attorney claimed, however, that his actions were essentially collusive. Both men agreed to and were examined by the court expert. The tests confirmed the defendant's contentions and the government dismissed the indictment.

At approximately the same time in the Eastern District of New York there is a reported decision - United States v. Hart, 344 F. Supp. 522, involving solicitation of bribes by a narcotic agent.

During the trial it was brought out on cross examination of a government witness that the witness had taken a polygraph test - administered by the government which indicated he was lying. Judge Orrin Judd, who was presiding, ruled that the government must show why it administered the test to its witness and why it later disregarded the results. The government then dismissed the case and elected not to appeal the trial court's ruling.

More recently - in 1972 - two reported opinions were regarded as signalling perhaps a change in the established rule against the admissibility of polygraph testimony.

In U. S. v. Ridling, District Judge Charles W. Joiner of the Eastern District of Michigan in an extremely well reasoned and analytical opinion ruled that the defendant who was charged with perjury would be tested by a court appointed expert and that the results of the test would be disclosed to the jury. Judge Joiner after conducting an evidentiary hearing wrote an opinion which could very well serve as the precedent for which other District Court Judges have long sought.

And then there are the proceedings and opinion in U.S. v. Zeiger. In that case your speaker was impressed by the highly professional performance of - Mr. Frederick Barnett - the lead counsel - and the knowledgeable witnesses - Mr. Lynn Marcy, Mr. John Reid, Mr. Warren Holmes, Mr. David Raskin, and Mr. Cleve Backster.

Judicial restraint and modesty demand that I limit my comment on the Zeiger case. As you know the life span of that opinion was limited. And in less than 72 hours it was reversed by the U.S. Court of Appeals for the District of Columbia without an opinion.

The unfortunate aspect about the case was that no opportunity was afforded for a complete, and detailed briefing and argument of the issues involved.

The case went up on appeal pursuant to a provision of the D. C. code permitting the United States to appeal a ruling during the trial which involves a substantial question of law requiring appellate resolution. The Code provides for an expedited appeal - with argument before the appellate court and a decision by them within 96 hours. Because of limitations on time and briefing a full and comprehensive presentation of the subject was impossible.

Following the ruling on inadmissibility the trial resumed and fortunately Mr. Zeiger was acquitted.

This might be regarded as an unfortunate development for his counsel - who were deprived the opportunity to present a well developed brief and argument on all issues - - allowing for a more thoughtful and deliberate consideration by the appellate court under normal circumstances.

Also, in United States v. Lanza, 356 F. Supp. 27 (M.D. Fla. 1973), Judge Tjoflat found that an insufficient foundation was laid in that case to justify admitting the results of the polygraph examination in evidence. However, he disagreed with the government's position that the results of polygraph examinations should never be received into evidence and ruled that given an adequate foundation, it would be within the discretion of the trial judge whether to receive such evidence. The Court there stated (p. 30):

"During the trial of this case, the defendant John Newton Fountain advised the Court that as a part of his defense he proposed to offer expert testimony on the results of a polygraph examination that had been administered to him. The government objected to the admission of any evidence relating to the polygraph test, citing numerous decisions on the subject and noting that no federal court has admitted the results of a polygraph examination.

(4) In United States v. Chastian, 435 F.2d 686,687 (7th Cir. 1970), and United States v. Wainwright, 413 F. 2d 796 (10th Cir. 1969), both cited by the government, the refusal to admit the polygraph results were based on the failure of the proffering party to lay a proper foundation for the testimony. In each instance, the Court noted that, given an adequate foundation, it would be within the discretion of the trial judge whether to receive such evidence. The Court views this, rather than the per se rule urged by the government, to be the correct approach to the question of admissibility."

As you can see from the above, there are a growing number of court cases each year in which the results of polygraph examinations are being recognized as admissible in evidence under certain circumstances and provided a proper foundation is laid. I expect that this pattern will continue in the future.

* * * * *

P O L Y G R A P H T E C H N I Q U E

Edited by J. Kirk Barefoot

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CONGRESSIONAL HEARINGS ON THE POLYGRAPH

STATEMENT ON TRAINING*

By

Robert A. Brisentine, Jr.

The US Army training facility for polygraph examiners is located at the US Army Military Police School, Fort Gordon, Georgia. This training program was established on 16 July 1951 and since that time the US Army has trained 1,251 polygraph examiners. This does not include nine students presently attending the training course. The original training period was eight weeks in duration; however, on 6 July 1965, the course was extended to 12 weeks and since 10 August 1970 the school has been 14 weeks in duration. In addition to the 14 week formal training phase, each examiner must serve an internship prior to certification as a polygraph examiner.

Training of polygraph examiners by the US Army is accomplished for the US Army, US Air Force, US Navy, US Marine Corps, US Treasury Department, and the US Postal Service. The Army has also trained polygraph examiners for the US Coast Guard; the National Security Agency; US civilian police agencies under the Law Enforcement Assistance Administration; Canadian Defense Forces; Philippine Army; the Republic of Korea Army; Pakistani Army; Republic of Nationalist China Army; and the Venezuelan Army.

In addition to the 1,251 graduates of the Basic Course; Advanced, Refresher, or Personnel Security Training has been afforded 270 students.

Prior to 10 August 1970, the failure ratio was 10.9% (125 of 1,143); however, since that date a change in the selection for training criteria and an increase in the training

*The above is the statement submitted by Robert A. Brisentine, Jr. to the Foreign Operations and Government Information Subcommittee of the House Committee on Government Operations, June 5, 1974.

period has resulted in only a 6.5% (7 of 108) failure ratio of the course.

The prerequisites for attendance by all DoD personnel include -- US citizen, at least 25 years of age, baccalaureate degree from an accredited college, plus 2 years experience as an investigator with a recognized government agency; or the equivalent of 2 years of college, plus 5 years of investigative experience. Personnel attending the course from other Department of Defense or other federal agencies must meet prerequisites as determined by their respective agencies.

There are 506 academic hours in the Polygraph Examiner Course, which includes 13 hours of Polygraph Theory and Administration, 19 hours of Polygraph Maintenance Management, 84 hours of Polygraph Examination Procedures, 34 hours of Training Regarding Evaluation of Mental and Physical Fitness of Examinee, 331 hours of Comprehensive Practical exercises, and 25 hours of examinations. There are also 54 hours of non-academic (administrative) time included in this course, with a total course time of 560 hours or fourteen weeks. Each of the subjects regarding the preparation for and the conduct of polygraph examinations are taught by experienced polygraph examiners while training in Law, Psychology, Physiology, Pharmacology, and other technical non-polygraph subjects are taught by experts in these fields. These subjects prepare the students to better observe physical or mental abnormalities that may preclude conclusive results in a polygraph situation, or symptoms to recognize when a potential examinee should be referred for appropriate professional evaluation as to his suitability for polygraph testing. During this training each student conducts two to three polygraph examinations per day for a period of 47 days. These examinations are of hypothetical crimes or incidents. The students are monitored directly by an instructor on each of these examinations and are critiqued on their progress following each examination. Monitorship by instructors is accomplished on the basis of one instructor for each two students.

Polygraph maintenance instruction includes training the examiner to repair and calibrate each type of polygraph instrument within the DoD according to the manufacturer's specifications.

A copy of the Program of Instruction for the Polygraph Examiner Course is attached as an inclosure.

Based on current FY 1974 funding, the cost per student for the Basic Course amounts to \$6,283.11, which includes equipment, upkeep of buildings, support personnel, and the payment of instructors' salaries. These instructors, in addition to teaching polygraph subjects, also conducted polygraph examinations in support of US Army criminal investigations, monitor intern examiners, and teach other investigative related subjects.

The Polygraph Examiner Refresher Course, a three week or 120 hour course, affords advanced or refresher training for the practicing polygraph examiner and the requalification and certification of previously trained personnel who have not been active as polygraph examiners. This course provides refresher training in all facets of polygraph examination procedures and polygraph instrumentation, as well as subjects related to the conduct of polygraph examinations. It is encouraged within the DoD that polygraph examiners receive advanced or refresher training each two years at either the US Army Training Facility, or at Civilian Advanced training seminars or work shops.

The internship prior to certification within the military departments of DoD is six months to one year in length following the formal phase of polygraph training. During this period, each examiner will conduct polygraph examinations in support of criminal or security investigations wherein polygraph charts are generated. Prior to certification, each intern examiner will conduct examinations of individuals who are truthful, who are practicing deception, and from examinees whose charts cannot be interpreted. All examinations conducted by intern examiners are directly supervised by a certified examiner.

In addition to the formal training and the internship served by each examiner, all polygraph examination charts and documents are reviewed for quality by Supervisor Polygraph Examiners at a central location within the components. This includes a review to determine if the findings by the examiner were verified by the collected polygraph charts; a review to determine if appropriate test and question construction were utilized; quality of instrumentation patterns, and calibration of the polygraph instrument, and a review to determine if the examinee has been properly advised of his constitutional

rights. Following the review, a critique letter is returned to the examiner. This type of quality control has existed since 1967.

Thank you for this opportunity to present the DoD Polygraph Training Program.

* * * * *

UNITED STATES ARMY
MILITARY POLICE SCHOOL
Fort Gordon, Georgia 30905

December 1973

PROGRAM OF INSTRUCTION FOR

7H-F11

POLYGRAPH EXAMINER TRAINING COURSE

MOS: SUFFIX K ADDED.

LENGTH: Peacetime - 14 weeks

Mobilization - 11 weeks, 4 days

APPROVED BY: CDR, TRADOC
30 November 1973

(This POI Supersedes POI for the Polygraph Examiner Training Course, June 1972.)

This Course has been Systems Engineered.

Section I - Preface.

- A. Course: 7H-F11, Polygraph Examiner Training.
- B. Purpose: To qualify military and federal civilian investigative/intelligence personnel as polygraph examiners. MOS for which trained: none. Suffix K (Certified Polygraph Examiner) added to current MOS.
- C. Prerequisites: Warrant Officer and civilian personnel: U.S. Citizen. At least 25 years of age. Graduate (baccalaureate degree) of an accredited college, plus 2 years as an investigator with a recognized government agency; or the equivalent of 2 years of college as

rights. Following the review, a critique letter is returned to the examiner. This type of quality control has existed since 1967.

Thank you for this opportunity to present the DoD Polygraph Training Program.

* * * * *

UNITED STATES ARMY
MILITARY POLICE SCHOOL
Fort Gordon, Georgia 30905

December 1973

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This Course has been Systems Engineered.

Section I - Preface.

- A. Course: 7H-F11, Polygraph Examiner Training.
- B. Purpose: To qualify military and federal civilian investigative/intelligence personnel as polygraph examiners. MOS for which trained: none. Suffix K (Certified Polygraph Examiner) added to current MOS.
- C. Prerequisites: Warrant Officer and civilian personnel: U.S. Citizen. At least 25 years of age. Graduate (baccalaureate degree) of an accredited college, plus 2 years as an investigator with a recognized government agency; or the equivalent of 2 years of college as

prescribed by AR 621-5, plus 5 years of investigative experience. No security clearance required. Obligated service for active Army warrant officers: 1 year.

Special information: Personnel selected by chiefs of all Department of Defense and other federal agencies must meet prerequisites as determined by their respective agencies.

D. Length: Peacetime: 14 weeks Mobilization: 11 weeks, 4 days

E. Training location: Peacetime & Mobilization: U.S. Army Military Police School

F. MOS feeder pattern:

	Prerequisite MOS	MOS Trained in This Course	Feeds Following MOS
WO	951A	Suffix K added	None

G. Ammunition requirements: No ammunition required.

H. Selected training Recapitulation: Not applicable.

I. Standardization of prefix digit 5 training: Not applicable.

Section II - Summary.

Course - Polygraph Examiner Training, 7H-F11

Hours - 560 hours

Subject	Hours	Annex	Page
A. Academic Subjects			
Polygraph Theory and Administration	13	A	6
Polygraph Maintenance Management	19	B	8
Polygraph Examination Procedures	84	C	10
Evaluation of Mental and Physical Fitness of Examinee	34	D	14
Comprehensive Practical Exercises	331	E	17
Examinations	25	F	20
Subtotal:	506		
B. Nonacademic Subjects			
Inprocessing	5		
Outprocessing	2		
Physical Conditioning	24		

B. Nonacademic Subjects (cont.)	Hours
Commandant's Time	12
Open Time	11
Subtotal	54
Total:	560
C. Recapitulation	
1. Security Classification	
Unclassified (U)	560
2. Type of Instruction	
Conference (C)	137.5
Hardware Practical Exercise (PE1)	12
Nonhardware Practical Exercise (PE2)	281
Classroom Practical Exercise (PE3)	7.5
Demonstration (D)	3.5
Film (F)	3.5
Case Study (CS)	23
Television (TV)	13
Examination (E)	25
Nonacademic	54
Total:	560

Section III - Body.

Course - Polygraph Examiner Training, 7H-F11

Academic Subjects - Peacetime: 506 hours; Mobilization: 506 hours.

<u>Annex Title and Subjects</u>	<u>Hours</u>	<u>Annex</u>	<u>Page</u>
Polygraph Theory and Administration		A	6
Theory of Detection of Deception	3		6
Polygraph Regulations, References, Records, and Reports	2		6
Legal Considerations	5		6
Semantics	3		7
Annex Total:	13		
Polygraph Maintenance Management		B	8
Polygraph Nomenclature, Function, and Maintenance	11		8
Proper Functioning of all Components of the Stoelting (Model AN/USS-2D) Polygraph Instrument	6		8
Proper Functioning of Other Polygraph Instruments	2		8
Annex Total:	19		

<u>Annex Title and Subjects</u>	<u>Hours</u>	<u>Annex</u>	<u>Page</u>
Polygraph Examination Procedures		C	10
Pretest Procedures and Interviews	9		10
Zone Comparison Test Construction (ZCT)	10		10
Peak of Tension (POT) Test Construction	4		10
Test Graph Markings	2		11
Polygraph Operation	8		11
Chart Interpretation	21		11
Post-Test Procedures	9		11
Presentation of Briefings/Court Testimony	4		12
Modified General Question Technique (MGQT)	2		12
General Question Test (GQT) Construction	2		12
Personnel Screening Techniques	13		12
Annex Total:	84		
Evaluation of Mental and Physical Fitness of Examinee D			14
Dynamics of Normal Behavior	8		14
Introduction to Abnormal Psychology	2		14
Neurotic and Psychotic Reactions	8		14
The Sociopathic Personality	2		14
The Human Body	2		15
The Nervous System	5		15
The Cardiovascular System	3		15
The Respiratory System	2		16
Pharmacology	2		16
Annex Total:	34		
Comprehensive Practical Exercises		E	17
Phase I, Conduct of Zone Comparison Technique Polygraph Examinations	16		17
Phase II, Conduct of Zone Comparison Technique Polygraph Examinations	45.5		17
Phase III, Conduct of Peak of Tension Polygraph Examinations	24		17
Phase IV, Conduct of Peak of Tension Polygraph Examinations	32		18
Phase V, Conduct of Zone Comparison Technique Polygraph Examinations	48		18
Phase VI, Conduct of Zone Comparison Technique Polygraph Examinations	42.5		18
Phase VII, Conduct of Modified General Question Technique Polygraph Exami- nations	16		18
Phase VIII, Conduct of Modified General Question Technique Polygraph Exami- nations	31		19

<u>Annex Title and Subjects</u>	<u>Hours</u>	<u>Annex</u>	<u>Page</u>
Comprehensive Practical Exercises (cont.)			
Phase IX, Conduct of Personnel			
Screening Polygraph Examinations	24		19
Phase X, Conduct of Personnel			
Screening Polygraph Examinations	52		19
Annex Total:	331		
Examinations		F	20
Performance Test Number 1	.5		20
Performance Test Number 2	1		20
Performance Test Number 3	1.4		20
Performance Test Number 4	1.6		21
Performance Test Number 5	2.5		21
Performance Test Number 6	3		21
Performance Test Number 7	3		22
Performance Test Number 8	4		22
Performance Test Number 9	2		23
Performance Test Number 10	6		23
Annex Total:	25		

Section IV - Annexes

Annex A - Polygraph Theory and Administration

Purpose - The student will become familiar with the limitations of the polygraph and with the theories of detection of deception. The student will become familiar with polygraph regulations, directives, references, records, and reports; he will be prepared to observe legal considerations in polygraphy; he will apply the principles of semantics to the conduct of pre-test interviews and test question formulation.

File No.	Clas	Type of Instruction
IN100 - Theory of Detection of Deception		
Hours: 3	U	2C, 1D
Objective: Under pertinent supervision and guidance of a qualified instructor, the student will become familiar with the principles underlying the theory of detection of deception; physiological changes recorded by the pneumograph, cardiosphygmograph, and galvanograph components; principles of test construction; and limitations of the polygraph. A complete polygraph examination will be demonstrated.		

File No.	Clas	Type of Instruction
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Ref: AR 195-6; TM PMG 22; Truth and Deception, Inbau and Reid; Annual Report on Polygraph Trends, Academy of Scientific Interrogation, Backster; Lie Detection and Criminal Interrogation, Inbau and Reid; Anticlimax Dampening Concept, Backster; Outside Superdampening Factor, Backster; Lying and Its Detection, Trovillo.

IN102 - Polygraph Regulations, References, Records, and Reports
Hours: 2 U 1C, 1PE2

Objectives: Given applicable references and forms, the student will formulate polygraph reports in accordance with current regulations and directives under simulated polygraph examination room conditions and will determine the proper method of preparation and distribution of the reports.

Ref: AR 195-6; TB PMG 22; MCM, 1969 (Rev); School material.

IN104 - Legal Considerations

Hours: 5 U 4C, 1PE2

Objective: Given pertinent references and materials and under classroom conditions simulating a polygraph examination room, the student will become able to determine the various types of evidence; he will become capable of advising a prospective examinee of his legal rights and will become familiar with the rules of admissibility pertaining to the results of a polygraph examination.

Ref: AR 195-6; TB PMG 22; MCM, 1969 (Rev); CM Reports.

IN106 - Semantics

Hours: 3 U 2C, 1PE2

Objective: Under classroom conditions simulating a field polygraph examination environment, the student will apply the principles of semantics to the conduct of pretest interviews and test question formulation.

Ref: AR 195-6; TB PMG 22; MCM, 1969 (Rev); Semantics and Common Sense, Solomon; Language in Thought and Action, Hayakawa.

Annex Total: 13

Annex B - Polygraph Maintenance Management

Purpose - The student will be able to differentiate between the various components and accessories of polygraph instruments currently in use by all of the armed services and other federal agencies; he will further be capable of maintaining such instruments at minimum standards applicable to the service or agency concerned, to include familiarity with and implementation of current maintenance directives and electronic maintenance forms.

file No.	Clas	Type of Instruction
IN200 - Polygraph Nomenclature, Function, and Maintenance		
Hours:	11 U	2C, 1D, 7PE1, 1TV
Objective:	Given proper references and tools or equipment, and under polygraph maintenance room environment conditions, the student will understand the functions of all components of the model AN/USS-2D polygraph and will become familiar with the nomenclature of each component; he will disassemble and assemble the instrument; he will perform organizational maintenance; he will isolate and identify malfunctions which require higher echelon maintenance; he will maintain records concerning equipment maintenance.	
Ref:	TM 11-5538A; TM 11-6695-200-20P; TM 11-6695-200-35P; TM 11-6695-203-15; TM 11-6695-203-25P; TVR 1-33; TVR 1-34; TVR 1-35.	
IN202 - Proper Functioning of All Components of the Stoelting (Model AN/USS-2D) Polygraph Instrument		
Hours:	6 U	.5C, .5D, 5PE1
Objective:	Given proper references, tools, and materials including a Stoelting Model AN/USS-2D polygraph instrument, and under polygraph maintenance room conditions, the student will methodically inspect all components for sensitivity and/or leakage, identify and isolate malfunctions peculiar to this instrument, and maintain maintenance documents for this instrument.	
Ref:	TM 11-5538A; TM 11-6695-200-20P; TM 11-6695-200-35P; TM 11-6695-203-15; TM 11-6695-203-25P.	

File No.	Clas	Type of Instruction
IN204 - Proper Functioning of Other Polygraph Instruments		
Hours: 2 U		1C, 1D
Objective: Given other Stoelting polygraph instruments, Keeler polygraph instruments, and LaFayette polygraph instruments, the student will identify variations in the functioning and maintenance procedures of these instruments from those of the AN/USS-2D instrument.		
Ref: TM 11-6695-210-12; TM 11-6695-203-15; <u>Polygraph Lie Detectors</u> , C. H. Stoelting Co.; <u>Keeler Polygraphs</u> , T. P. Manual 70-1, Associated Research, Inc.; <u>LaFayette Manual</u> , LaFayette Instrument Co.		
Annex Total: 19		
 Annex C - Polygraph Examination Procedures		
Purpose - The student will formulate test questions according to current and accepted techniques; he will conduct pretest and post-test interviews; he will properly prepare polygraph charts; and will deliver briefings/court testimony regarding polygraph operation.		
IN300 - Pretest Procedures and Interviews		
Hours: 9 U		2C, 5PE2, 2TV
Objective: Under conditions simulating a polygraph examination environment and using pertinent reference materials, the student will practice the procedures and techniques involved in administering pretest interviews to prospective polygraph examinees.		
Ref: AR 195-6; <u>Truth and Deception</u> , Inbau and Reid; <u>The Keeler Technique</u> , Harrelson; TVR 8-70; TVR 440.		
IN302 - Zone Comparison Test Construction (ZCT)		
Hours: 10 U		4C, 1TV, 5PE2
Objective: Under classroom conditions simulating a polygraph examination room and given pertinent reference materials, the student will formulate valid polygraph test questions utilizing the Zone Comparison Technique.		
Ref: AR 195-6; TB PMG 22; MCM, 1969 (Rev); <u>Zone Comparison Technique</u> , Backster; School material; TVR 8-3.		

File No.	Clas	Type of Instruction
IN304 - Peak of Tension (POT) Test Construction		
Hours:	4 U	2C, 2PE2
Objective: Under classroom conditions simulating a polygraph examination room and given pertinent references, the student will formulate valid polygraph questions utilizing the Peak of Tension question technique.		
Ref: AR 195-6; TB PMG 22; MCM, 1969 (Rev); <u>Truth and Deception</u> , Inbau and Reid; <u>The Keeler Technique</u> , Harrelson; <u>Lie Detection and Criminal Interrogation</u> , Inbau and Reid.		
IN306 - Test Graph Markings		
Hours:	2 U	1.5C, .5PE3
Objective: Under instructor supervision, using pertinent references in a classroom, the student will use the signs and symbols peculiar to the markings of charts or polygrams prior to, during, and after the conduct of polygraph examinations.		
Ref: AR 195-6; TB PMG 22; <u>Uniform Chart Markings</u> , Backster; <u>The Keeler Technique</u> , Harrelson; <u>Operator's Manual</u> , C. H. Stoelting Co.		
IN308 - Polygraph Operation		
Hours:	8 U	.5C, 6.5PE2, 1TV
Objective: With instructor supervision and under conditions simulating a polygraph examination room, the student, using previously distributed materials and an AN/USS-2D polygraph instrument, will attach/activate and detach/deactivate the instrument on a prospective examinee.		
Ref: TM 11-5538A; School material; TVR 8-3; TVR 8-71.		
IN310 - Chart Interpretation		
Hours:	21 U	8C, 7PE3, 6CS
Objective: Under instructor supervision and given reference material and complete properly marked polygraph charts, the student will interpret polygrams and charts depicting responses on the three basic components of a polygraph instrument.		
Ref: AR 195-6; TB PMG 22; <u>Truth and Deception</u> , Inbau and Reid; <u>Lie Detection and Criminal Interrogation</u> ,		

File No.

Clas

Type of Instruction

Inbau and Reid; The Keeler Technique, Harrelson;
Backster Zone Comparison Technique, Backster;
School material.

IN312 - Post-Test Procedures

Hours: 9 U 2.5C, 5PE2, .5TV, 1F

Objective: Under conditions simulating a polygraph examination room environment and given a polygraph instrument, the student will prepare to execute the terminal phase of all types of polygraph examinations in accordance with the outcome of the examination.

Ref: AR 195-6; TB PMG 22; MCM, 1969 (Rev); Criminal Interrogations and Confessions, Inbau and Reid; School material; TVR 8-72 (part III); FBI film, "Interviews."

IN314 - Presentation of Briefings/Court Testimony

Hours: 4 U 2C, 2PE2

Objective: Under classroom conditions simulating briefing/court conditions and given appropriate notes and displays, the student will deliver briefings/court testimony.

Ref: School material.

IN316 - Modified General Question Technique (MGQT)

Hours: 2 U 1C, 1PE2

Objective: Under classroom conditions simulating a polygraph examination room, and with pertinent references, the student will formulate valid polygraph questions using the Modified General Question Technique.

Ref: AR 195-6; TB PMG 22; MCM, 1969 (Rev); Lie Detection and Criminal Interrogation, Inbau and Reid; Truth and Deception, Inbau and Reid.

IN318 - General Question Test (GQT) Construction

Hours: 2 U 1C, 1PE2

Objective: Under classroom conditions simulating a polygraph examination room, the student will formulate General Question polygraph tests.

Ref: AR195-6; TB PMG 22; MCM, 1969 (Rev); The Keeler
Technique, Harrelson.

File No.	Clas	Type of Instruction
IN320 - Personnel Screening Techniques		
Hours:	13 U	7.5C, 4PE2, 1.5TV
Objective: Under classroom conditions simulating a polygraph examination room, and with pertinent references, the student will formulate and apply test questions peculiar to the conduct of personnel screenings.		
Ref: AR 195-6; TB PMG 22; <u>Truth and Deception</u> , Inbau and Reid; <u>Annual Report on Polygraph Trends</u> , Academy for Scientific Interrogation, 1961, Backster; <u>The Keeler Technique</u> , Harrelson; TVR MP5-73.		
Annex Total: 84		

Annex D - Evaluation of Mental and Physical Fitness of Examinee

Purpose - The student will prepare to make determinations concerning the mental and physical suitability of prospective polygraph examinees.

IN400 - Dynamics of Normal Behavior		
Hours:	8 U	6C, 1.5TV, .5F
Objective: Under pertinent supervision and guidance of a qualified instructor in a classroom setting, the student will gain a basic understanding of the normal behavior of the human organism.		
Ref: <u>Abnormal Psychology and Modern Life</u> , Coleman; <u>Educational Psychology</u> , Cronbach; <u>An Introduction to Psychology</u> , Murphy; CF, "Not All Cops, Not All Kids"; TVR 2-71; TVR 20-70; TVR 5142.		
IN402 - Introduction to Abnormal Psychology		
Hours:	2 U	1C, 1TV
Objective: Under supervision and guidance of a qualified instructor in a classroom setting, the student will summarize abnormal behavior, both descriptively and interpretatively. He will discuss differences between normal and abnormal behavior, with emphasis on the deviations or aberrations normally associated with the human organism.		
Ref: <u>Abnormal Psychology and Modern Life</u> , Coleman; TVR 19-312.		

File No.	Clas	Type of Instruction
IN404 - Neurotic and Psychotic Reactions		
Hours:	8 U	7C, 1TV
Objective: Under the guidance of a qualified instructor in a classroom setting, the student will relate and apply the implications of neurotic and psychotic disorders to use of the polygraph.		
Ref: <u>Abnormal Psychology and Modern Life</u> , Coleman; TVR 8-73; TVR 8-3968.		
IN406 - The Sociopathic Personality		
Hours:	2 U	1C, 1TV
Objective: Under instructor supervision in a classroom setting, the student will relate the symptoms of sociopathic personality disorders to the use of the polygraph as an investigative aid.		
Ref: <u>Abnormal Psychology and Modern Life</u> , Coleman; <u>The Adolescent</u> , Seidman; <u>Society and the Criminal</u> , East; <u>Delinquency</u> , Block and Flynn; TVR 8-3835.		
IN408 - The Human Body		
Hours:	2 U	2C
Objective: Under instructor supervision in a classroom setting, the student will gain an understanding of the functions of cells, tissues, and major organs and systems of the human body.		
Ref: <u>Basic Physiology and Anatomy</u> , Chaffee and Greisheimer; <u>The Physiology of Man</u> , Langley and Cheraskin; <u>Physiology</u> , Tuttle and Schottelius.		
IN410 - The Nervous System		
Hours:	5 U	4C, 1F
Objective: Under instructor supervision in a classroom setting, the student will learn how the nervous system is related to polygraph examinations as applied stimuli are converted to nervous impulses, perception, and memory.		
Ref: <u>Textbook of Physiology</u> , Tuttle and Schottelius; <u>Basic Physiology and Anatomy</u> , Chaffee and Greisheimer; CF, "Gateways to the Mind."		
IN412 - The Cardiovascular System		
Hours:	3 U	2C, 1F
Objective: Under instructor supervision in a classroom setting, the student will learn the basic		

File No.	Clas	Type of Instruction
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functions of the cardiovascular system with emphasis on the role and implications of physiological changes occurring during the conduct of polygraph examinations.

Ref: Basic Physiology and Anatomy, Chaffee and Greisheimer; The Physiology of Man, Langley and Cheraskin; Textbook of Physiology, Tuttle and Schottelius; CF, "Hemo the Magnificent."

IN414 - The Respiratory System

Hours: 2 U 1.5C, .5TV

Objective: Under instructor supervision in a classroom setting, the student will learn the basic functions of the respiratory system with emphasis on the role and implications of the system in polygraphy.

Ref: Basic Physiology and Anatomy, Chaffee and Greisheimer; The Physiology of Man, Langley and Cheraskin; Textbook of Physiology, Tuttle and Schottelius; TVR 8-98631.

IN416 - Pharmacology

Hours: 2 U 1C, 1TV

Objective: Under instructor supervision, the student will gain a basic understanding and appreciation of the effects of designated drugs on respiration, blood pressure, and psychogalvanic skin reactions in polygraphy.

Ref: AR 195-6; TB PMG 22; Textbook of Physiology, Tuttle and Schottelius; The Pharmacological Basis of Therapeutics, Goodman and Gilman; United States Pharmacopia, Journal of the American Medical Association; TVR 19-299.

Annex Total: 34

Annex E - Comprehensive Practical Exercises

Purpose - The student will demonstrate the knowledge and skills gained from previous instruction by conducting polygraph examinations in varied situations which require the

File No.	Clas	Type of Instruction
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application of recommended principles, techniques, and procedures common to the field of polygraphy.

IN500 - Phase I, Conduct of Zone Comparison Technique Polygraph Examinations

Hours: 16 U 4C, 11Pe2, 1CS

Objective: Under operational conditions and given an AN/USS-2D polygraph instrument and an examinee, the student will conduct elementary practical exercises using the Zone Comparison Technique and will be individually critiqued.

Ref: TM 11-5538A; TM 11-6695-203-15; MCM, 1969 (Rev); Truth and Deception, Inbau and Reid; Criminal Interrogations and Confessions, Inbau and Reid; Uniform Chart Markings, Backster; School material.

IN502 - Phase II, Conduct of Zone Comparison Technique Polygraph Examinations

Hours: 45.5 U 9.5C, 34PE2, 2CS

Objective: Under operational conditions and given an AN/USS-2D polygraph instrument and an examinee, the student will conduct intermediate level practical exercises in the conduct of Zone Comparison Technique polygraph examinations and will be individually critiqued.

Ref: TM 11-5538A; TM 11-6695-203-15; MCM, 1969 (Rev); Truth and Deception, Inbau and Reid; Criminal Interrogations and Confessions, Inbau and Reid; Uniform Chart Markings, Backster; School material.

IN504 - Phase III, Conduct of Peak of Tension Polygraph Examination

Hours: 24 U 6C, 16PE2, 2CS

Objective: Under operational conditions and given an AN/USS-2D polygraph instrument and an examinee, the student will conduct elementary practical exercises in the conduct of Peak of Tension polygraph examinations and will be individually critiqued.

Ref: Truth and Deception, Inbau and Reid; Criminal Interrogations and Confessions, Inbau and Reid; Uniform Chart Markings, Backster; School material.

File No.	Clas	Type of Instruction
IN506 - Phase IV, Conduct of Peak of Tension Polygraph Examinations		
Hours: 32	U	6C, 24PE2, 2CS
Objective: Under operational conditions and given an AN/USS-2D polygraph instrument and an examinee, the student will conduct intermediate level practical exercises in the conduct of Peak of Tension polygraph examinations and will be individually critiqued.		
Ref: <u>Truth and Deception</u> , Inbau and Reid; <u>Criminal Interrogations and Confessions</u> , Inbau and Reid; <u>The Keeler Technique</u> , Harrelson; School material.		
IN508 - Phase V, Conduct of Zone Comparison Technique Polygraph Examinations		
Hours: 48	U	11C, 35PE2, 2CS
Objective: Under operational conditions and given a polygraph instrument and examinee, the student will conduct advanced examinations using the Zone Comparison Technique and will be individually critiqued.		
Ref: <u>Truth and Deception</u> , Inbau and Reid; <u>Criminal Interrogations and Confessions</u> , Inbau and Reid; <u>The Keeler Technique</u> , Harrelson; School material.		
IN510 - Phase VI, Conduct of Zone Comparison Technique Polygraph Examinations		
Hours: 42.5	U	4C, 36.5PE2, 2CS
Objective: Under operational conditions and given a polygraph instrument and an examinee, the student will conduct advanced examinations using the Zone Comparison Technique and the Peak of Tension Technique, and will be individually critiqued.		
Ref: <u>Truth and Deception</u> , Inbau and Reid; <u>Criminal Interrogations and Confessions</u> , Inbau and Reid; <u>The Keeler Technique</u> , Harrelson; School material.		
IN512 - Phase VII, Conduct of Modified General Question Technique Polygraph Examinations		
Hours: 16	U	4C, 11PE2, 1CS
Objective: Under operational conditions and given a polygraph instrument and an examinee, the student		

File No.	Clas	Type of Instruction
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will conduct elementary examinations using the Modified General Question Technique and will be individually critiqued.

Ref: AR 195-6; TB PMG 22; Lie Detection and Criminal Interrogation, Inbau and Reid; Truth and Deception, Inbau and Reid.

IN514 - Phase VIII, Conduct of Modified General Question Technique Polygraph Examinations

Hours: 31 U 7C, 22PE2, 2CS

Objective: Under operational conditions and given a polygraph instrument and an examinee, the student will conduct advanced examinations using the Modified General Question Technique and will be individually critiqued.

Ref: AR 195-6; TB PMG 22; Lie Detection and Criminal Interrogation, Inbau and Reid; Truth and Deception, Inbau and Reid.

IN516 - Phase IX, Conduct of Personnel Screening Polygraph Examinations

Hours: 24 U 6C, 17PE2, 1CS

Objective: Under operational conditions and given a polygraph instrument and an examinee, the student will conduct elementary practical exercises using polygraph personnel screening techniques and will be individually critiqued.

Ref: AR 195-6; TB PMG 22; Truth and Deception, Inbau and Reid; Annual Report on Polygraph Technique Trends - ASI, Backster; School material.

IN518 - Phase X, Conduct of Personnel Screening Polygraph Examinations

Hours: 52 U 10C, 40PE2, 2CS

Objective: Under operational conditions and given a polygraph instrument and an examinee, the student will conduct advanced practical exercises in the conduct of personnel screening polygraph examinations and will be individually critiqued.

Ref: AR 195-6; TB PMG 22; Truth and Deception, Inbau and Reid; Annual Report on Polygraph Technique Trends - ASI, Backster; School material.

Annex Total: 331

File No.	Clas	Type of Instruction
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Annex F - Examinations

Purpose - To provide a meaningful evaluation of each student, to measure student progress and the efficiency of instruction, and to further student learning and assist in providing student motivation.

IN002 - Performance Test Number 1

Hours: .5 U .5E

Objective: Under operational conditions and given a polygraph instrument the student will prepare to conduct a polygraph examination, to include troubleshooting and calibrating the instrument, and preparing the physical facilities. This test encompasses material presented in IN100, IN200, IN202, IN204, and IN300.

Ref: School material.

IN004 - Performance Test Number 2

Hours: 1 U 1E

Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee, and appropriate blank forms, the student will prepare to conduct a polygraph examination, and will conduct pretest operations, to include advising the examinee of his rights and obtaining his written consent, completing the appropriate blank forms, and preparing the examinee for examination. This test encompasses material presented in IN100, IN102, IN104, IN106, IN200, IN202, IN204, IN300, IN400, IN402, IN404, IN406, and IN500.

Ref: School material.

IN006 - Performance Test Number 3

Hours: 1.4 U 1.4E

Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee and appropriate blank forms, the student will prepare to conduct a polygraph examination, will conduct pretest operations, and will formulate appropriate test questions, using the Zone Comparison and Peak of Tension question Formats. This test encompasses material presented in IN100, IN102,

File No.	Clas	Type of Instruction
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IN104, IN106, IN200, In202, IN204, IN300, IN302,
IN304, IN400, IN402, IN404, IN406, IN500, IN502,
and IN504.

Ref: School material.

IN008 - Performance Test Number 4

Hours:	2.1	U	2.1E
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Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee and appropriate blank forms, the student will prepare to conduct a polygraph examination, will conduct pretest operations, will formulate appropriate test questions, and will conduct a polygraph examination, recording examinee responses to spoken stimuli on polygraph charts. This test encompasses material presented in IN100, IN102, IN104, IN106, IN200, IN202, IN204, IN300, IN302, IN304, IN306, IN308, IN400, IN402, IN404, IN406, IN500, IN502, IN504, and IN506.

Ref: School material.

IN010 - Performance Test Number 5

Hours:	2.5	U	2.5E
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Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee and appropriate blank forms, the student will prepare to conduct a polygraph examination, will conduct pretest operations, will formulate appropriate test questions using the Zone Comparison and Peak of Tension question formats, will conduct a polygraph examination, and will interpret the Zone Comparison and Peak of Tension polygraph charts to form a conclusion on the examinee's truthfulness. This test encompasses material presented in IN100, IN102, IN104, IN106, IN200, IN202, IN204, IN300, IN302, IN304, IN306, IN308, IN310, IN400, IN402, IN404, IN406, IN408, IN410, IN412, IN414, IN416, IN500, IN502, IN504, IN506, IN508, and IN510.

Ref: School material.

IN012 - Performance Test Number 6

Hours:	4	U	4E
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Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee

and appropriate blank forms, the student will prepare to conduct a polygraph examination, will conduct pretest operations, will formulate appropriate Zone Comparison test questions, will conduct a polygraph examination, will interpret the Zone Comparison polygraph charts, and will take appropriate post-test action, including application of appropriate interrogational techniques, cleaning the instrument, preparing appropriate maintenance records, and preparing the written examination report. This test encompasses material presented in IN100, IN102, IN104, IN106, IN200, IN202, IN204, IN300, IN302, IN304, IN306, IN308, IN310, IN312, IN400, IN402, IN404, IN406, IN408, IN410, IN412, IN414, IN416, IN500, IN502, IN508, and IN510.

Ref: School material.

IN014 - Performance Test Number 7

Hours: 4 U 4E

Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee and appropriate forms, the student will prepare to conduct a polygraph examination, will conduct pretest operations, will formulate appropriate test questions using the Modified General Questions test format, will conduct the polygraph examination, will interpret the Modified General Questions polygraph charts to form a conclusion about the examinee's truthfulness, and will take appropriate post-test action. This test encompasses material presented in IN100, IN102, IN104, IN106, IN200, IN202, IN204, IN300, IN306, IN308, IN310, IN312, IN316, IN400, IN402, IN404, IN406, IN408, IN410, IN412, IN414, IN416, IN512, and IN514.

Ref: School material.

IN016 - Performance Test Number 8

Hours: 4 U 4E

Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee and appropriate blank forms, the student will prepare to conduct a polygraph examination, will conduct pretest operations, will formulate appropriate test questions using the General Questions/Personnel

Screening test format, will conduct the polygraph examination, will interpret the General Questions/ Personnel Screening polygraph charts, and will take appropriate post-test action. This test encompasses material presented in IN100, IN102, IN104, IN106, IN200, IN202, IN204, IN300, IN306, IN308, IN310, IN312, IN318, IN320, IN400, IN404, IN406, IN408, IN410, IN412, IN414, IN416, IN516, and IN518.

Ref: School material.

IN018 - Performance Test Number 9

Hours: 2 U 2E

Objective: Under conditions stimulating a courtroom and given the assignment to present court testimony, the student will orally present appropriate testimony concerning the polygraph instrument, its uses, technical matters, and findings in specific examinations. This test encompasses generally all materials presented in the course and specifically material presented in IN314.

Ref: School material.

IN020 - Performance Test Number 10

Hours: 3.5 U 3.5E

Objective: Under operational conditions and given a polygraph instrument, a case file, an examinee and appropriate blank forms, the student will conduct a complete polygraph examination including preparation for the examination, pretest operations, formulation of test questions, conduct of the examination, chart interpretation, and appropriate post-test actions. This test encompasses all material presented in the course.

Ref: School material.

Annex Total: 25

POLYGRAPH AND THE LAW,
A PROSECUTOR'S VIEW*

By

Christopher T. Bayley
Prosecuting Attorney, King County
Seattle, Washington

In recent years, the use of the polygraph has been of increasing interest to those involved with law enforcement and the criminal justice system. I welcome the opportunity at this time to review some of the past legal developments regarding the use of the polygraph as well as to discuss some of its current uses.

Although this article is not meant to be exhaustive on the subject, there are four areas on which I will touch: (1) the law of polygraphs and the admissibility of examination results as opinion evidence; (2) the opinions of expert polygraph operators are, in appropriate cases, being given considerable weight in day to day decisions a prosecutor must make on whether or not to file charges on a given case; (3) even with existing case law limitations the opinion testimony of polygraph experts can be of a quality that should make it available to the trier of fact in determining guilt or innocence; (4) in certain narrow and specific instances, the polygraph is a very useful tool for any internal investigations that might occur concerning the conduct and performance of public officials and employees with regard to their guardianship of the public trust.

Even a search through the law library makes it clear that the polygraph has not yet won widespread judicial approval. Yet those who would categorically oppose the use of the polygraph or admissibility of polygraph results will find it increasingly difficult to legitimately maintain such a stance in light of more recent developments.

*The above article is reprinted from the Washington State Bar News, Autumn, 1973, pages 13, 15 & 57.

More Study Required

More work needs to be done with regard to a better understanding of the exact relationship between certain physiological reactions, such as pulse rate, blood pressure, muscle tension, respiration rate, and galvanic skin response, to the telling of a truth or a falsehood. The empirical data is, however, convincing with respect to the opinions of qualified experts when there is the opportunity for verification or corroboration such as in a confession case.

A key element is "qualified" expert. We are quite fortunate to have some of the top polygraph people in the country in the King County area. National standards would be helpful in speeding the acceptance of the use of polygraph evidence but until such time the courts should be able to proceed on a case by case basis with regard to the qualifications of a given examiner, in much the same manner as would be necessary in laying the foundation for any expert opinion testimony. At this time, polygraph technique has developed to the stage where competent examiners should be allowed to testify in courts of law as experts, with the evidence to be treated as opinion evidence, just as, for example, handwriting analysis is.

Frye v. United States, 293 F. 1013 (D.C. Cir. 1923) set forth the reasons upon which current arguments against the use of the polygraph are still based. In Frye, a murder case, the defense offered the testimony of an expert witness concerning the results of a "systolic blood pressure deception test." The trial court denied the admissibility of this evidence holding:

"We think the systolic blood pressure deception test has not yet gained such standing and scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony deduced from the discovery, development, and experiments thus far made."

One might note that polygraph was in its infancy in 1923. In Frye, only one physiological measurement was taken; today at least four are included. Furthermore, as with so many scientific tests and theories in other areas, the

development of polygraph testing during the last ten years has shown enormous gains and advances. As an aside, another person confessed to the murder for which Frye was convicted.

Major Breakthrough

A major breakthrough in the use of the polygraph as evidence came in the early 1960's with such cases as State v. Valdez, 91 Ariz. 274, 371 P.2d 894 (1962). Valdez and similar cases opened the way for the use of polygraph evidence to corroborate other evidence in the case, upon stipulation by both sides. The court said:

With improvement in and standardization of instrumentation, technique and examiner qualifications the margin of proven error (5 percent or less) is certain to shrink. 'Modern court procedure must embrace recognized modern conditions of mechanics, psychology, sociology, medicine, or other sciences, philosophy, and history. The failure to do so will only serve to question the ability of courts to efficiently administer justice.' Chappell, J., concurring in Boeche v. State, 151 Neb. 368, 383, 37 N.W. 2d 593, 596, 600 (1949). Although much remains to be done to perfect the lie detector as a means of determining credibility we think it has been developed to a state in which its results are probative enough to warrant admissibility upon stipulation. Cf., People v. Zavaleta, 182 Cal. App. 2d 422, 6 Cal. Rptr. 166, 171 (1960).

The Valdez standard was adopted by the Washington Court of Appeals in State v. Ross, 7 Wn. App. 62 (June 1972).

More recent decisions indicate that polygraph evidence is approaching full status as opinion testimony. The key decision is United States v. Ridling 350 F. Supp. 90 (Oct. 1972), a decision by Federal Judge Charles W. Joiner, a former dean of Wayne State University's Law School.

In Ridling, the defendant proposed to offer the testimony of polygraph experts. Judge Joiner held such testimony was fully admissible as opinion testimony provided that the defendant would agree to submit to a further test by a court appointed expert chosen from a group of three independent

experts, and provided further that the expert found the subject fit for testing and was in fact able to reach an opinion as to the truthfulness of the subject's responses. In reaching this decision, Judge Joiner heard evidence from persons considered experts in the use of the polygraph on the following:

1. The basic theory of the polygraph.
2. The reliance on the polygraph by government agencies.
3. The reliance on the polygraph by private industry.
4. The comparative reliability of the polygraph and other scientific evidence, such as fingerprint and ballistic evidence.
5. The opinion of the experts as to whether polygraph evidence would be a valuable aid in connection with the determination of the issues such as the one facing the court in this case (perjury) and in the administration of justice.

In coming to its determination, the court made the following observations:

"Although these opinions (cases cited against the use of the polygraph evidence) are entitled to great weight in considering the matter at this time, they are not persuasive insofar as they are predicated on the unreliability of the polygraph. This is a question to be determined in each case, United States v. Wainsright, 413 F.2d 296 (10th Cir. 1969). Techniques improve. The evidence in this case indicates that the techniques of the examination and the machines used are constantly improving and have improved markedly in the past ten years.

"The court further noted that the opinion testimony of the expert was admissible as any other opinion testimony, with its weight to be determined by the trier of fact.

Finally the court noted that:

"The use of the court appointed expert, whether or not he agrees with the expert tendered

by the defendant, is a practical solution to the problem presented by the fact that only minimal standards exist for polygraph experts. It will in most cases permit the jury to hear the evidence."

Polygraph Aids Investigation

The polygraph should and does have a very important use as an investigatory aid in addition to any use it might have as evidence in a trial. There are occasions when the polygraph plays a very useful role in our office in the pre-charging phase. It is the responsibility of the prosecutor and his staff to carefully scrutinize all cases presented by the various police agencies for filing. The prefiling examination of cases is a vital step in weeding out any possible "bad" charges. There are occasions where deputies will carry on investigations in addition to those performed by the police agencies, including personal interviews with key witnesses. The areas where this procedure must of necessity arise are the so-called "one-on-one" situations, where the alleged victim is the only witness to the crime, with no other witnesses or evidence to corroborate that testimony. One such obvious area includes morals cases. The victim may then be asked to submit to a polygraph examination. Should the victim be a suitable subject for testing, and pass the test given by a reputable examiner, this substantially reduces any possibility that a person will be wrongfully charged.

After charges are filed against a person, the use of the polygraph also plays a role in our office policy. In certain types of cases stipulated polygraphs are offered to defendants. The use of stipulations is in keeping with the current state of the law in Washington under the Ross decision. With respect to the present office policy, the stipulation, which must be agreed to by the defendant, his counsel, and our office, indicates that the defendant will take a polygraph examination from a given examiner agreed upon by both parties, that if the examiner determines that the person is a fit subject for testing and if in the examiner's opinion the test results are conclusive as to either truth or deception with respect to questions asked, then the results will be admissible as evidence in a court of law.

It is further stipulated that if the subject is not fit for testing, or if the results are inconclusive, then the
Polygraph 1974, 03(3)

taking of the test will not be mentioned by either party.

This type of stipulation takes into account a number of factors. First it recognizes that in some cases the person may not be suitable for testing where, for example, the person is ill, too young, or suffering from the effects of drug addiction. Second, there is recognition of the fact that some test results may be inconclusive as to truth or deception.

Moreover, by stipulating that the results will be admissible as evidence rather than stipulating that the results will be dispositive of the case, there is tacit recognition of the fact that the polygraph is not relied upon as a sole determiner of guilt or innocence. It does represent opinion evidence which may be very helpful to the trier of the fact. Such testing is, as with all evidence, subject to impeachment through cross-examination or contradiction.

Our office does not stipulate that a finding of truthfulness would automatically mean a dismissal of the case as this would rule out the possibility that additional independent evidence might be discovered in the case. There have been situations where the additional evidence has shown that a person's involvement in a given crime was different than originally thought at the time the polygraph test was given. The wrong questions may have been asked in the first examination, and additional polygraph tests have then been given with questions reflecting the new information.

Similarly, we are not in a position to demand that a test result indicating deception will require a plea of guilty. To do so might well be to deprive a person of his constitutional right to trial. In reality, the stipulated polygraph usually results in a reaffirmation of the other evidence supporting the charges, and a plea of guilty often results. The polygraph should not be used to decide the ultimate issue of guilt or innocence but should be considered like any other opinion evidence offered by an expert.

As a practical matter, should a defendant take and pass a stipulated polygraph, the state would usually not proceed with the prosecution. This of course assumes that further investigation uncovers no new evidence to support the proposition that the test was not properly given or the correct questions were not asked.

Injustice Averted

One recent case shows how a possible miscarriage of justice was averted through the use of the polygraph. There was direct eyewitness and physical evidence to indicate that the defendant participated in an armed robbery. The proffered defense was that of duress. Although this was a case involving direct, and not circumstantial evidence, the evidence was not inconsistent with the defendant's theory. Experience suggested that without any polygraph evidence, the defendant stood a strong chance of being convicted. Nevertheless, a stipulated polygraph was arranged and the defendant passed the test. After reexamining the evidence, and making further investigations, the decision was made to dismiss the charges.

In addition to its use in determining the filing or possible disposition of cases, the polygraph has an additional important function in connection with internal investigations. Such investigations might be appropriate in any area of public and governmental service. Recently, the focus has been in the area of police department internal investigations.

Legally, the Washington courts have addressed remarks to the issue of the use of the polygraph in internal investigations. In Seattle Police Officers' Guild v. City of Seattle, 80 Wn.2d 307, 474, P.2d 485 (1972), our Supreme Court held that:

"A police officer may be required to submit to a polygraph test under the penalty of dismissal for refusal, when the authorities investigating serious and notorious allegations of police misconduct or corruption conclude, in the exercise of prudent judgement, that it is reasonably necessary to use the device as an investigatory tool to test the dependability of prior answers of suspected officers to questions specifically, narrowly, and directly related to the performance of their official duties."

Inherent in such a holding is judicial approval of the substantial reliability of the polygraph when expertly used.

There are debates in progress within the Washington Legislature and the Seattle City and King County Councils.
Polygraph 1974, 03(3)

Police unions are urging these legislature bodies to statutorily prohibit the effective use of the polygraph in internal investigations. It is my opinion that to say the law as set forth in the Seattle Police Officers' Guild case makes police officers second class citizens is a specious argument. All public employees with law enforcement responsibility, (including prosecutors) should be held to the highest standard in carrying out their public trust. To deprive Chief Tielsch, Chief Hendren, Sheriff-Director Waldt and others of this infrequently used but vital tool in the face of their advice as to its importance would be a serious legislative mistake.

It is clear from the cases and from the legislative debates that the polygraph remains a controversial machine. It is not infallible and certainly must be used with expertise and in the context of other available evidence. But it remains useful at all phases of the law enforcement process and it is clear that the courts recognize this and have given their approval to the polygraph and admissibility of polygraph evidence under proper circumstances.

* * * * *

L A W R E P R I N T A V A I L A B L E

Reprints of Howard S. Altarescu's article "Problems Remaining for the 'Generally Accepted' Polygraph" are available from BHF Printing, P. O. Box 83, Auburndale, Mass. 02166 for \$1.15 each, postpaid.

This scholarly article considers many of the problems to be faced in court. It first appeared in The Boston Law Review, Volume 53, Number 2, March 1973, pp. 375-405.

THE USE OF THE POLYGRAPH IN CRIMINAL CASES
A DEFENSE ATTORNEY'S VIEW*

By
Frank E. Haddad, Jr.
Louisville, Kentucky

In preparing to come here and speak to you today on the subject of the application of the polygraph, if you will, the lie detector, to criminal cases, I was reminded of my observation of the first experience of a young boy, perhaps five or six years of age, with the polygraph in my office one Saturday morning a few months ago. The boy became very curious as to the polygraph machine which an examiner was setting up in order to run a test on one of my clients. The examiner, noting the boy's shy nature, asked him if he would like to see how the machine worked. The invitation was accepted immediately and the young boy suddenly found himself attached to the machine and being asked if he had ever told his father a lie. As you might expect, the response and immediately the needle swept toward the top of the chart. Of course, we had one surprised little boy. It just did not seem possible to him that a machine operated by a man seemingly to him very similar to his father, could not know that he had not told the truth.

The court in the landmark case of Frye v. United States, 293 F. 1013 (D.C. Cir. 1923) must have had some of the same feelings regarding the polygraph that the little boy in my office demonstrated, namely disbelief and doubt. But, the determination by that court in 1923 that the results of polygraph tests should be rejected as evidence was certainly well founded at that time and reasonably justified by the conclusion that this type of evidence lacked general acceptance within the scientific community. However, the reference in the opinion to the polygraph being in a "twilight zone" somewhere between the point of nonacceptance and acceptance by the scientific community has continually plagued advocates of the admission of lie detector test results in evidence up to even the present time.¹ The question has been constantly

¹Vaughn, Richard F., "New Trends in Admissibility in Polygraph Tests & Spectogram Voiceprint Identification Evidence", 3 Memphis State U. L. Rev. 282 (1973).

*Delivered before the Tennessee Assoc. of Criminal Defense Lawyers at Nashville, Tennessee, August 16, 1974.

posed: When does the twilight zone end for polygraph test results? Two very prominent experts on the polygraph with whom we are all familiar, John E. Reid and Fred E. Inbau have addressed themselves to this question on two occasions in a work which they co-authored. In the 1953 edition of the book entitled Lie Detection and Criminal Interrogation, published by the Williams and Wilkins Company of Baltimore, they noted that in their opinion polygraph test results should not be admitted as evidence. However, in 1966, in a revised edition of the 1953 work, both gentlemen, as testified to by Mr. Reid in an out-of-court hearing at the trial of Captain Ernest Medina, radically changed their position. In response to questioning by F. Lee Bailey, Mr. Reid stated:

" In 1966, we decided after examining the whole field, that the polygraph had not reached the stage where it should be considered by the courts with all other type evidence. And we made the proposal at that time in the edition itself that if the judge and the prosecutor and defense counsel believe that the test should be accepted and that they would agree upon the expert testifying and the one who did the test beforehand that that should be admissible as evidence."²

As criminal defense attorneys we are still plagued with decisions by courts concerning the polygraph which demonstrate disbelief and doubt as did the little boy in my office and which still carry the rhetoric that 'the polygraph lacks general acceptance in the scientific community.' However, works by experts such as Reid and Inbau and recent decisions in both Federal and state courts seem to indicate that a new trend is developing toward allowing polygraph test results into evidence at least in a qualified manner and subject to a controlled scheme. We will discuss some of the recent case law as we go, but for now let me point out the necessity to educate ourselves as to the techniques involved in using the polygraph examination so that your clients and my clients will receive the greatest advantage possible. Of course the strategies will differ, depending on whether the results are favorable - no deception is detected or are unfavorable - deception is detected.

²Zimmerman, Charles H., "The Polygraph in Court," B.H.F., P. O. Box 83, Auburndale, Mass. (1972).

It goes without saying that the modern criminal defense attorney should apprise himself of the case law of his particular jurisdiction on the admission of polygraph test results. However, it is very important not to terminate your education at that point, but to also familiarize yourself with progressive opinions rendered in other jurisdictions for such may be invaluable in persuasive argument to a trial judge or an appellate court that your own jurisdiction should modify its approach to polygraph results as evidence and adopt a better rule enunciated elsewhere. But before we get to some of these decisions which indicate limited acceptance of polygraph results as evidence it is important to note that defense counsel may find beneficial uses for the results of a polygraph test even when the results of those tests will be inadmissible as evidence.

Use of Polygraph When Test Results Inadmissible³

Polygraph test results, even when not admissible as evidence, can be very helpful to the defense lawyer as an investigatory device. But, in addition to serving as such a tool the results may prove to be very valuable as a mechanism for bargaining with the prosecution, either in seeking a dismissal of the charges or in plea bargaining. However, again, it is vitally important to know the law of the jurisdiction under which you are operating on the enforcement of agreements between a prosecutor and defense counsel to drop the prosecution or allow a plea to a lesser crime when test results are favorable to your client. (See 36 ALR 3d 1280 and 21 Am Jur 2d, Criminal Law §152, concerning the enforcements of agreements).

Two fairly recent cases from Florida, State v. Davis, 188 So. 2d 24 (Fla. App. 1966) and Butler v. State, 228 So. 2d 421, 36 ALR 3d 1274 (Fla. App. 1969), held that agreements of the type referred to above would be binding on the state prosecution. While neither of these decisions on the effect of the lack of court approval of agreements of polygraph results between the prosecution and defense counsel, the indication seems to be that court approval may be necessary to find the agreements binding. It would certainly seem wise for defense counsel to make the trial court a party to any such agreement.

Finally, the possibility of pre-trial discovery of polygraph test results of witnesses against the defendant should

³Bailey and Rothblatt, Investigation & Preparation of Criminal Cases - Federal and State, "Use of the Polygraph", section 381-section 382 (1970).

be considered by defense counsel. Certainly, any discovery motion should include a request for all lie detector test results arising from tests requested by the prosecution. However, whether the discovery will be granted by the trial court is uncertain. In Anderson v. State, 241 So. 2d 390 (Fla. App. 1970), that Court held that where polygraph test results are inadmissible in evidence the defendant will not be allowed to discover the test results of accomplices who testified against him. But, the court in United States v. Hart, 344 F. Supp. 522 (D.C. N.Y. 1971), as indicated that that discovery might be allowed in certain instances even though polygraph results are held generally inadmissible. In that case the opinion stated that defendants should be allowed to inquire as to any investigations, *i.e.*, polygraph test results of the prosecution's chief witness, which should have indicated to the prosecution that it's witnesses' truthfulness was in question.

Protecting the Client From Adverse Test Results Arising From a Polygraph Test Administered Before Defense Counsel Enters a Case⁴

Another situation in which you may find yourself is that of representing a defendant who "voluntarily" took a polygraph test administered by the police prior to engaging you to represent him. Of course, if the results of the test are favorable to him, then the defense counsel will have no objections to their admission at trial and should argue that they be allowed into evidence. However, the problem may arise where the defendant has seemingly submitted to a polygraph test voluntarily and the results show deception on his part. As pointed out by F. Lee Bailey and Henry Rothblatt in their discussion of the polygraph in the recent volume entitled Investigation in Preparation of Criminal Cases, defense counsel must do more than just settle for cross-examination of the polygraph examiner. He, when on this side of the fence, must pitch a very persuasive argument to the trial court emphasizing both the traditional reasons for disallowing the test results plus the dangers of uncontrolled examinations where no defense counsel or at least no unbiased party is present or in a position to observe the test so as to determine that a reliable conclusion has resulted. A knowledge of the present trend today concerning the admission of the polygraph test results will certainly aid in formulating any such argument.

⁴Bailey and Rothblatt, supra.

The Modern Trend of Admitting Polygraph Test Results as Evidence

Many courts today hold that the results of polygraph tests will be admissible upon a stipulation by the prosecution and defense counsel that certain conditions will be met. State v. Valdez, 91 Ariz. 224, 371 P. 2d 894 (1962). (See also 53 ALR 3d 1009). In State v. Ross, 7 Wash. App. 62, 497 p. 2d 1343, 53 ALR 3d 997 (1972), the court recently determined that polygraph test results are admissible for the purpose of corroboration and has adopted the same condition and limitations set forth by the Court in Valdez, supra., as necessarily required for the admission of the results. They are as follows:

"(1) That the (prosecuting attorney), defendant and his counsel all sign a written stipulation providing for defendant's submission to the test and for the subsequent admission at trial of the graphs and the examiner's opinion thereon on behalf of either defendant or the state.

(2) That notwithstanding the stipulation the admissibility of the test results is subject to the discretion of the trial judge, i.e., if the trial judge is not convinced that the examiner is qualified or that the test was conducted under proper conditions he may refuse to accept such evidence.

(3) That if the graphs and examiner's opinion are offered in evidence the opposing party shall have the right to cross-examine the examiner respecting:

- a. the examiner's qualifications and training;
- b. the conditions under which the test was administered;
- c. the limitations of and possibilities for error in the technique of polygraphic interrogations; and,
- d. at the discretion of the trial judge, any other matter deemed pertinent to the inquiry.

(4) That if such evidence is admitted the trial judge should instruct the jury that the examiner's testimony does not tend to prove or disprove any element of the crime with which a defendant is

charged but at most tends only to indicate that at the time of the examination defendant was not telling the truth. Further, the jury members should be instructed that it is for them to determine what corroborative weight and effect such testimony should be given."

Aside for a moment, however, the question may be posed as to what to do when you, as defense counsel, have recommended to your client that he enter into a stipulation to take a lie detector test and following the examination you find the results to be adverse to him, it is necessary in this predicament to determine whether your jurisdiction will follow the rule that polygraph test results are always inadmissible and therefore, upon objection, the results will be inadmissible even though the test was taken upon stipulation that the results would be admissible, or the view that following a stipulation the results will be admissible over objection on the basis of some theory such as estoppel. If you find yourself in the situation of desiring to keep the results from being introduced into evidence, a recent decision handed down by the Appellate Court in New Mexico, State v. Chavez, 80 N.M. 786, 461 P. 2d 919 (1969), might serve useful in a persuasive argument. In that case, the Court held that the rule in New Mexico is that even though a proper stipulation exists and the polygraph examiner is available for cross-examination, the results of a polygraph examination are not admissible over objection. Therefore, defense counsel should always protect the record for appeal by objecting to admission of polygraph results at the trial level. See also Tucker v. Commonwealth, 21 Ky. L. S. 10 (Ky. 5/17/74). If the argument of Chavez, does not persuade the court to hold the adverse tests results inadmissible, then, of course, you can cross-examine the polygraph expert, attacking his qualifications and the reliability of the test itself.

As noted earlier in citing the recent Washington case of State v. Ross, supra., numerous courts are now allowing the introduction of polygraph test results upon stipulation by the prosecution and defense counsel. The requirement of a stipulation has proven to be essential to the issue of admissibility of polygraph results in many jurisdictions. For example, in United States v. DeBetham, 348 F. Supp. 1377 (D.C. Cal. 1972), the District Court, facing the issue of whether, absent a stipulation by the parties, a court sitting without a jury may receive polygraph test results in evidence, decided that

the results were inadmissible without a stipulation. However, a few courts in other recent opinions, have intimated that polygraph test results will be admissible even absent any stipulation. These courts seem to feel that the idea of discretion on the part of the trial judge is the rule to apply as to admissibility, subject to certain declared requirements. In leaning on the rule of discretion in United States v. Ridling, 350 F. Supp. 90, 12 Cr. L. 2055 (D.C. E. Mich. 1972), the Michigan District Court set forth the following stringent requirements:

- "1. The parties will meet and will recommend to the Court three competent polygraph experts other than those offered by the defendant.
2. The Court will appoint one or more of the experts to conduct a polygraph examination.
3. The defendant will submit himself for such examination at an appointed time.
4. The expert appointed by the Court will conduct the examination and report the results to the Court and to the counsel for both the defendant and the government.
5. If the results show, in the opinion of the expert either that the defendant was telling the truth or that he was not telling the truth on the issues directly involved in this case, the testimony of the defendant's experts and the Court's expert will be admitted.
6. If the tests indicate that the examiner cannot determine whether the defendant is or is not telling the truth, none of the polygraph evidence will be admitted."

Ridling, a perjury case, is important, however, not just because of the test set forth for the admission of polygraph test results or for the import of its decision that test results may be admissible. It is a case which should be examined by every defense attorney because of its approach to two very important and significant problems in the way of objections to polygraph test results: (1) self-incrimination; (2) hearsay. The Court, while admitting that the privilege against self-incrimination might be involved, stated that it felt that no infringement could exist because the polygraph test requires the full cooperation of the defendant. Miranda warnings could be given, and in any event the taking of the test should be regarded as a waiver of the Fifth Amendment privilege

because if the defendant does not fully cooperate the examiner's test results would prove to be inconclusive as the examiner would find it impossible to differentiate truth from deception. As to hearsay, the Court found no discernible problem because of the trustworthiness of the test results where the examiner has displayed his expertise and then subject to cross-examination.

In another noteworthy case decided in 1972, the California Superior Court for the County of Los Angeles in People v. Cutter, 12 Cr. L. 2133 (1972), also decided that polygraph tests results were admissible. That case is significant to defense lawyers because it allowed polygraph test results to be used at the pre-trial stage in a suppression hearing. The defendant had been charged with possession of marijuana following his arrest at an airport after a United States marshal had searched his luggage. The marshal admitted that the search was made without a warrant, but testified that the defendant consented to the search. Thus, a conflict arose between the testimony of the defendant and the marshal as to who opened the luggage and whether consent had been obtained. In allowing the defendant to introduce the results of a polygraph test administered to the marshal, the Court stated in its findings of facts:

"That the Courts have sufficient authority and under the Evidence Code to control, limit, and condition the introduction of such evidence so that overemphasis will not be placed on such evidence."

Finally, in the discussion of the recent trend concerning the admission into evidence of polygraph tests results, allow me to refer you to the most recent case of any import that I have found on the subject to date. The decision is cited as Commonwealth v. A. Juvenile (No. 1), 15 Cr. L. 2323 (Mass. Sup. Jud. Ct. 6/12/74), and arose in Massachusetts out of a trial of juvenile who was found delinquent by reason of manslaughter. As in many of the other recent cases mentioned previously, the Court here held that a determination as to the admissibility of lie detector evidence lies in the discretion of the trial judge. I mentioned this case not only because of the thoroughness of the opinion, but as another example of the trend toward leaving the decision as to the admission of the polygraph results in the hands of the trial judge with only a few guidelines to follow. And, with that

in mind, it is obvious that defense attorneys we are going to have to do our level best, in each case and before each new and different trial judge, to convince the trial court, when in the interest of our clients, that polygraph test results should be admissible as evidence. This will require laying the proper foundation for the admission of the test results. If you forget everything else that I have said here today, remember that laying the proper foundation for polygraph test results is something of vital importance and which cannot be overemphasized.

Laying the Proper Foundation of Scientific Credibility For Polygraph Test Results

It is obvious that each criminal defense lawyer must perfect his own presentation in laying a foundation for the admission for polygraph test results and must tailor the presentation to the peculiar factual situation. However, I highly recommend to you for your consideration a short list of essential elements to include which were developed over the years by Charles H. Zimmerman, an expert in the field of polygraph examinations, and who has conducted polygraph examinations for F. Lee Bailey in such celebrated cases as the Courts Martial of Captain Ernest Medina. The elements as listed by Mr. Zimmerman are as follows:⁵

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|--|---|
| 1) Recognition of physiological aspects of the technique-the opinion of such experts as to its possible value in verifying truthfulness... | (usually by recognized Psychiatrist, Psychologists, or Physiologists experience in the field ...as expressed in Addenda I and II (Dr. Basilio and Barland and Raskin, Ph.D.)) |
| 2) Historical Developments, Statistical Data, Scope of use, Professional Organizations... | (by recognized examiners, not connected with the case at bar) |
| 3) Use of the technique in the same State by Federal, State, or Municipal Agencies... | (by local examiners... stressing the fact that it is used during the initial process of the investigation...that instruments and training are supported by public funds and whether or not they |

are aware of any person eliminated by the technique but subsequently charged or tried for the crime in spite of the examination result)

- 4) Last, but not least, the examiner who conducted the examination

(who testifies to his own expertise and background in the field, test construction employed and reasoning for his opinion.)

In addition, you might also find useful Mr. Zimmerman's reprint of the presentation by F. Lee Bailey in his effort to lay a foundation for polygraph test results in the Medina trial.⁶ It will give you some insight into the application of the foregoing elements in laying a proper foundation.

Miscellaneous Considerations in Using the Polygraph In Criminal Law

With the new trend in admitting results of polygraph tests many questions will arise as to whether statements made by defendant to a polygraph examiner either before or during the test will be admissible in a court of law. Although there is little case law on the subject at the present, it seems wise to consider the case of Jones v. Commonwealth, Va. 204 S.E. 2d 247 (1974). In that case the Virginia Supreme Court held admissible an admission of guilt made by the defendant to a polygraph expert prior to the examination. The Court pointed out that the expert was in the employ of the defendant and at no time did defense counsel object or interrupt the conversation between the defendant and the polygraph examiner. I just mentioned this case to illustrate that unlike the attorney client privilege there is probably no privilege as to the relationship with a polygraph examiner. However, there may well be a way to bring this within the attorney-client privilege. Defense counsel should enter into a written contract with the examiner

⁵ Zimmerman, Charles H., The Polygraph in Court, supra.

⁶ Id.

whereby the examiner becomes an employee of the attorney for the purpose of administering the test to his client and spelling out that any conversation between the defendant and the examiner and in the presence of the attorney, shall come within the attorney-client privilege. This procedure has been used extensively in income tax cases where defense counsel employs an accountant to work on the case with him. You should also include in the agreement that the charts and other work papers of the examiner will become the property of defense counsel.

Conclusion

In closing, let me again urge you to become involved with the polygraph and aware of the recent trends in the case law. The use of the polygraph test results as evidence in Courts of law is a coming thing and no doubt the polygraph will in the future play a significant role in the process.

Dean Wigmore once said, "If there is ever devised a psychological test for the valuation of witnesses, the law will run to meet it."⁷ The polygraph test may indeed be the test to which he referred.

⁷ A. J. Wigmore, Evidence Section 875 n. 1 (Chadbourn rev. (1970)).

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THE VALIDITY OF THE POLYGRAPH WITH SCHIZOPHRENICS*

By

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The polygraph is receiving wide use in law enforcement work and is slowly being accepted into the courts. It has been demonstrated to be a valid and reliable instrument in measuring deception to the extent that ninety-eight per cent accuracy is attained in actual criminal investigations, and eighty-three per cent in laboratory studies(1). This degree of success, however, has not been reported with certain psychiatric categories and because of this, these individuals are generally not accepted for polygraph examination.

Floch(2) has indicated that the psychopath, anti-social personality, and the individual with circumscribed amnesia are not amenable to polygraph techniques. In a broad review of the literature, Orlansky(3) stated that this approach could not be employed effectively when such psychiatric conditions as retardation, psychosis, and psychopathy are present.

Relatively little research has been carried out in this area and the assumption that individuals in these psychiatric categories cannot be tested is generally based on the anecdotal reports of polygraph examiners. Larson(4), however, indicated that he obtained the same high level of validity in examining recidivists as he did with first offenders. While the recidivists were not diagnosed as psychopaths, it is likely that a larger number of these individuals fell into this category than did the first offenders. In a study of the psychopath, Ruilman and Gulo(5) reported that their polygraph records showed distinctly less reactivity on the galvanic stimulus response (GSR) and less stability in their respiratory pattern and blood pressure changes than both normal and schizophrenic subjects (Ss). Jost(6) indicated that there

*Appreciation is expressed by the author for the assistance of Dr. George Turner and the staff of the Oregon State Hospital in Salem, Oregon, and Mr. Dewey Gillespie and Mr. Norman Matzke of the Seattle, Washington Police Department.

were two polygraph patterns of psychopaths: the reactive, which was characterized by large but indiscriminate reactions; and the flat, which showed little reactivity. In schizophrenics he found a flattening of the GSR and blood pressure tracings and an unstable respiratory pattern. Neurotics demonstrated reactivity in all three realms, but mainly in blood pressure and respiration. Heckel et al(7) compared the differences in polygraph responses in neurotic, delusional, psychotic, and normal Ss. They employed four trained polygraph examiners who diagnosed accurately all of the normal Ss regarding truthfulness or deception. In the neurotic and psychotic groups there was not one S about whom all four of the polygraphists agreed in their ratings. The reliability of the judges decreased with those Ss who showed greater emotional disturbance and it was concluded that the polygraph testing of neurotic and psychotic Ss could produce results which in some cases could lead to erroneous conclusions.

In an attempt to study repression and its effect on the polygraph, Germann(8), by means of hypnosis, induced amnesia in an attempt to mislead the polygraph examiner. His results indicated that in spite of the hypnosis, deception was detected by the polygraphist. Bitterman and Marcuse(9) demonstrated that even though a state of amnesia was developed for a specific word to the extent that a S was unable to recognize or recall this word in a non-hypnotic state, it could be determined through a polygraph test. In contrast to this, Weinstein et al(10), employing a mock crime paradigm, reported that hypnosis altered the Ss' reactions to the extent that the examiner had to diagnose them as inconclusive. The polygraphist believed that they were deceptive but the tracings were not sufficiently clear to label them as lying. In another portion of this investigation, individuals who did not take part in the mock crime were hypnotized and told that they had participated. In each case, the examiner was inaccurate and had seen them as having taken part in the "crime". The experimenters assumed from these findings that a guilt-laden person with information about the crime could be seen as guilty on the polygraph even though he had not been involved. Dearman and Smith(11) reported such a case in which a bank employee, tested on a polygraph, was found to have taken bank funds. Further study, however, found him to have considerable feelings of generalized guilt but innocent of any theft. While this was a dramatic demonstration of the possible misleading effects of guilt upon the polygraph, it is a very rare occurrence as evidenced by the high validity found in criminal investigations.

In a study of retardates by Abrams and Weinstein(12) the findings indicated that with below borderline intelligence the polygraph demonstrated little validity and the greater the degree of retardation, the less accurate were the polygraph results.

While the research on the polygraph and its use with various psychiatric categories has yielded rather divergent results, the overall impression is that polygraphy is not an effective measurement of deception with these individuals.

Because of the paucity of research in this area, an attempt was made to study the validity and reliability of the polygraph with schizophrenics.

Procedure

Twenty schizophrenic patients from the Oregon State Hospital were selected by the staff for this study. The only criteria used were that they were not so paranoid as to be disturbed by the administration of the polygraph, and that they were willing to take part in the research. All of the subjects were told in advance that the purpose of the research was to evaluate the effectiveness of the lie detector and each patient was paid two dollars for his assistance. The twenty Ss were divided randomly into two groups of ten Ss each and before each test all Ss were given the questions and the order in which they would be presented. The control group was told that they would be asked a series of questions and to answer them truthfully. The experimental group was given one dollar and twenty-five cents in quarters and was instructed not to admit this to the polygraph examiner in any way. They also were told that if they could mislead the polygraphist they could keep the money. While this was felt to motivate the patient to be deceptive, it is not believed that it could be comparable in any way to a suspect in a criminal investigation is being studied in a laboratory context which cannot be generalized completely to an actual criminal investigation. The fear of detection is not comparable and it is the fear response which sets off the physiologic reaction which in turn results in detection. In a field study the suspect faces possible imprisonment, financial loss, and personal embarrassment, while the volunteer S in laboratory research has relatively little to lose(13). Inevitably, validity must be lower than attained in actual criminal investigations.

The twenty Ss consisted of seven with a mean length of hospitalization of one year and an average age of twenty-one. The second group of six Ss had been hospitalized for an average of five and one-half years and an average age of thirty. The last group of seven Ss had been hospitalized for a mean of seventeen years and averaged forty-one years of age. These groups were classified separately after the examination in an attempt to determine if the accuracy of the polygraph varied with degree of chronicity. The most chronic group was almost uncommunicative and great care was taken in presenting the instructions to them. In spite of this, there was frequent movement which interfered with the polygraph testing. The less chronic Ss, while they were delusional and hallucinatory, responded quite readily to the experimental procedures. All of the patients were taking heavy dosages of various tranquilizers which added another variable and possibly increased the difficulty in interpreting the polygraph tracings.

A Keeler Three-Channel Polygraph was used to measure GSR, respiratory rate and pattern, heart beat rate, and blood pressure changes. For a more complete description of the polygraph and its sensors, the reader is referred to Inbau and Reid(14).

A series of three peak of tension tests (POT) were administered twice to each S. The following questions were asked:

Peak of Tension Test 1

When you were in the other room did you take

- 1) candy?
- 2) cigarettes?
- 3) clothing?
- 4) money?
- 5) food?
- 6) a pen?

Peak of Tension Test 2

Regarding the money that was taken, do you know if it was in

- 1) pennies?
- 2) nickels?
- 3) dimes?
- 4) quarters?
- 5) halves?
- 6) dollars?

Peak of Tension Test 3

Regarding the money that was taken, do you know if it totaled

- 1) 50¢
- 2) 75¢
- 3) \$1.00?
- 4) \$1.25?
- 5) \$1.50?
- 6) \$1.75?

The POT is the most effective measure of detecting deception employed in polygraphy. It has the advantage of avoiding the guilt and anxiety reactions of the innocent S that might occur in tests which ask such direct questions as "Did you ~~take~~ take the money?" In the POT procedure the innocent S does not know which stimulus to be anxious or concerned about. The individual with guilty knowledge, knowing not only the correct stimulus word but also its placement among the other words to be presented, becomes increasingly anxious as the key word is approached. After the stimulus is passed, there is a reduction of the anxiety, resulting in a peak-like reaction on the polygraph tracings. Thus, in the first POT employed in this study, the S would be expected to demonstrate greatest physiologic responsiveness as he approaches item four (money), where he would be expected to peak and then drop.

After the examinations were completed, each chart was studied and each S was judged to be either honest or deceptive. Although it unquestionably reduced the validity, no cases were placed in the inconclusive category. Of the three examiners who rated the charts, the first examiner, and the one who administered the tests, had had considerably less experience. The other two examiners had each tested over 2,000 Ss. In this study, examiners two and three judged the tracings blindly, without having seen the examinations administered.

TABLE I
POLYGRAPH ACCURACY LEVEL

Subject	Age	Months of Hospitalization	Group*	Exam 1**	Exam 2**	Exam 3**
1	20	12	E	+	+	+

Subject	Age	Months of Hospitali- zation	Group*	Exam 1**	Exam 2**	Exam 3**
2	24	12	E	+	-	-
3	17	12	C	+	+	-
4	24	12	C	+	+	+
5	26	3	E	+	+	-
6	20	2	E	-	+	+
7	19	3	E	+	+	+
Accuracy	.....			86%	86%	57%
8	23	41	C	+	+	+
9	20	65	C	+	-	-
10	33	96	E	+	+	+
11	24	36	C	-	-	-
12	48	89	E	-	-	-
13	34	96	C	+	+	+
Accuracy	.....			67%	67%	50%
14	30	132	E	+	+	+
15	37	120	C	+	+	+
16	33	252	C	+	-	-
17	47	180	C	-	+	+
18	36	168	E	+	+	+
19	50	168	C	-	+	+
20	57	408	E	-	-	-
Accuracy	.....			57%	71%	71%
Total Accuracy	.....			70%	70%	60%

*E indicates experimental group and C indicates control group.

** + indicates examiner accuracy and - indicates inaccuracy.

Results

There was not sufficient consistence of performance among the polygraph tracings of the 20 Ss to be indicative of a

schizophrenic pattern. Their responses varied with some patients presenting erratic reactions in their blood pressure, while others responded in this manner in their respiratory tracings. On the GSR, some Ss did not respond at all but others were overly reactive. Still other patients demonstrated what might be termed normal charts. The only similarities were the generally erratic tracings and the fact that these charts would typically have been categorized as inconclusive. Of the 20 Ss, 17 would have been classified in this manner. Not employing this category, however, inevitably results in a spuriously high rate of errors.

There was no clear indication that the degree of chronicity influenced the accuracy of diagnosis in either direction. The mean accuracy level for the three examiners was 76 per cent for the acute group, 56 per cent for the medium group, and 66 per cent for the most chronic patients. The overall accuracy for examiners one and two was 70 per cent, and 60 per cent for examiner three. The average correct judgments for the three examiners was 67 per cent.

The degree of agreement between examiners two and three was 90 per cent, while examiner one was consistent with examiner two in 70 per cent of the cases and 60 per cent with examiner three. The mean agreement among the three examiners was 73 per cent. All three examiners were in complete agreement on 12 of the 20 cases (60 per cent). These statistics are shown in Table I.

The effect of medication could not be evaluated. It was not possible to determine if the heavy dosages of various medications were an asset or a disadvantage in differentiating truth from deception.

Discussion

In spite of the reports indicated earlier in this paper suggesting that each psychiatric diagnostic category might have its own distinctive polygraph pattern, this was not corroborated for schizophrenics in this study. While their overall response tended to be highly erratic, there was little other similarity among the subjects. Moreover, their charts could not be clearly differentiated from individuals who demonstrated symptoms of extreme anxiety. In the past, consideration has been given to the possibility of the polygraph

being utilized as an aid to psychiatric diagnosis. From the results of this investigation, however, there would seem to be little likelihood that it would be a valid aid even though it has been demonstrated to be a useful tool in detecting areas of high emotional value(15).

The assumptions of polygraphists that psychotic individuals could not be accurately tested for deception with the polygraph was verified in this investigation. It must be kept in mind, however, that in almost every case the subjects were viewed as inconclusive. Had there been sufficient time to collect a sample in which a definite determination of deceptive or truthful could have been made, the validity undoubtedly would have been much higher. Since laboratory studies have followed the same procedure of not eliminating inconclusive tracings, it does allow for some basis of comparison with other research. The 67 per cent accuracy attained in this investigation is significantly lower than the 83 per cent average of other laboratory studies.

In view of this low validity, concern has been expressed that a polygraph examiner might not recognize that a criminal suspect is schizophrenic and would attempt to evaluate him on the polygraph. There would seem to be little danger of this, for if his disturbed behavior were not obvious, his erratic pattern would suggest he is not testable. Even if an attempt were made to evaluate the tracings, there is a great likelihood, judging from this study, that the results would be labeled inconclusive.

While the accuracy of judgment among the three polygraphists was similar, in spite of the difference in experience, a greater discrepancy occurred in reliability. The inexperienced examiner's rating demonstrated less agreement with the other two polygraphists. It would have been expected that accuracy as well would have varied with experience, as was reported in a study by Horvath and Reid(16). In their study of criminal cases their results showed the more experienced examiners to be accurate in 91 per cent of the cases, in contrast to the polygraphists with little experience, who made correct judgments in 79 per cent of the charts. The inconsistency in findings between the two studies may be due to the fact that the less experienced polygraphist in this investigation administered the tests and he may have picked up cues from the subject's behavior.

Conclusion

Research has demonstrated that the polygraph is both a valid and reliable instrument in detecting deception. It has been assumed, however, that its accuracy would be significantly reduced in the testing of certain psychiatric categories. This had been demonstrated in the case of retardates, and now has been shown to occur in schizophrenics as well. Further research is necessary, however, to evaluate its effectiveness with various neurotic groups, psychopaths, and in various organic disorders. In addition, there has been little controlled investigation of the effects of drugs upon the efficiency of this approach. These are all important areas for study since the criminal population has a greater proportion of individuals with emotional problems and drug use. Moreover, an individual being requested to take a polygraph examination could easily obtain tranquilizers or sedatives in the hope that his physiologic response to lying would be reduced. Since greater use is being made of the polygraph and it is approaching the point where it will more routinely be admitted into court as evidence, the great need for further research in these areas is obvious.

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PRETEST INTERVIEWS

By

Bobby J. Daily

During discussions with experienced polygraph examiners, the conversations frequently turn to causes of unsuccessful polygraph examinations. These unsuccessful examinations may be characterized by polygraph tracings that are erratic due to controlled responses, general nervous tension, failure of the examinee to cooperate during the testing phase, and other factors which may result in inconclusive evaluations of the polygrams.

The pretest interview is an integral part of all testing techniques and requires the utilization of the examinee's knowledge of psychology and physiology. In a relatively short period of time, the polygraph examiner must instill a feeling of confidence within the examinee. This feeling of confidence must be presented so that it works one of two ways. The innocent or truthful examinee becomes confident that the examiner is competent, the polygraph procedure is reliable, and that it will verify that he is truthful. The guilty or untruthful examinee becomes confident that the examiner is competent, the polygraph procedure is reliable, but now becomes apprehensive about his ability to "beat" the test. How well you do this phase of the examination will be reflected in the clarity of the polygrams.

Let us review some of the prerequisites for a successful pre-test interview.

a. Physical and Mental Fitness. This applies to both the examinee and the examiner. We know that if we are feeling ill, haven't eaten properly, haven't had enough rest, or have overindulged in food or drink, we cannot perform at peak efficiency. We owe it to ourselves, our associates, and most particularly our examinees to be physically and mentally prepared for the examinations. Likewise, we must assure that the examinee is physically and mentally able to undergo the examination. If the examinee is in physical pain, ill or exhausted from work or lack of sleep, our chances of having a successful examination are slim. The examiner must continually

be on the alert for abnormal behavior symptoms of the examinee as a means of evaluating his mental suitability for the examination. In addition, the examinee should be specifically queried as to his medical background, his current physical condition, and recent use of drugs and/or medication.

b. Examination Room. A great deal could be written about the physical layout of an ideal polygraph examination room, but that is not the main theme of this article. However, it should be mentioned that in order to have a successful pre-test interview, the examination room should be as free as possible from distractions. The key words are quiet and privacy.

c. Coordination with the Investigator. Take time to carefully talk to the investigator who is controlling the case. Review his report and notes. Obtain from him as much background data on the examinee as possible. Seek his assistance in formulating possible test questions. Elicit his opinions about the case, but be careful not to permit such to influence your judgment or your subsequent interpretation of the polygrams. With the assistance of the investigator, formulate a plan for the approach to the interview of the examinee. This plan should be thorough, but must be flexible.

d. Reception of the Examinee. This is a most critical phase of the examination, more so than most examiners may realize. We tend to form quick opinions about people we meet and it usually takes quite a bit of time for us to change from these initial impressions. Just think back about someone you casually met at a cocktail party, or were introduced to on the street by a friend. You may have only talked a few minutes, but chances are you formed some opinions about him. When you first meet the examinee, you will begin to form opinions about him also. Just don't forget, he is doing the same thing about you. It is very important that you attempt to make this situation work to your advantage.

An attitude of professionalism must be maintained from the moment you meet the examinee until you shake his hand and bid him goodbye. Your greeting should be friendly, but businesslike. Establish and maintain rapport with the examinee, but don't become overly friendly. At all times, try to impress the examinee that you are an impartial professional.

e. Advisement of Legal Rights. Because of the varied methods of advising suspects of their legal rights by different departments, I will not elaborate upon them here. It will suffice to point out that the advisement of rights should be an initial aspect of the pretest interview. It must be done prior to any questioning of the examinee about the offense under investigation.

f. Statement of Consent. The next step is to complete the statement of consent to the examination. Normally, no polygraph examination should be conducted unless the examinee agrees to it in writing. The examiner must assure that the examinee is submitting to the examination of his own free will and is not being coerced to take the examination. If at all possible, the signing of the statement of consent should be witnessed by a third party.

g. Discussion of Examinee's Background. Prior to the interview of the examinee, the examiner should have gathered a good deal of information about him. This is done through review of the case file, personnel records, medical records, and interview with the case investigator. This information can now be put to good advantage as it will assist in establishing rapport with the examinee. It also can be used to determine if the examinee will truthfully discuss his background with the examiner. This discussion will also serve to fill in pertinent information that may be missing from the records.

If you are using a control question technique, this is the time to lay a foundation for your control questions. For instance, if you are to use larceny type controls, during this phase of the pretest lay the foundation to try to get the examinee to lie or be concerned about some larceny he has committed that is not related to the actual crime being investigated. One method is to query the examinee about his previous employment, then compliment him about his previous job record. Suggest to him that such a good record could be attributed to his being a "basically honest person". This procedure makes it more difficult for the examinee to later admit having stolen anything from a previous employer. It is suggested that this foundation be laid prior to any discussion or review of test questions.

The examiner can also use this phase of the pretest to determine "examinee's language" for use in formulating all test

questions. Always remember, the examinee, not the examiner, determines the vocabulary to be used in test question construction.

h. Explanation of the Polygraph Test. The examiner should briefly explain the polygraph testing procedure to be used. Utilizing your knowledge of psychology and physiology, briefly explain what happens when a person lies.

Point out, and briefly explain the components of the polygraph instrument. Explain that the polygraph is an instrument that records physiological changes that take place in the body during the examination. Mention the futility of telling a lie as "you would have to lie to yourself". Caution should be used in explaining the components that you do not over emphasize any one component. Such may result in attempts to control breathing, increase general nervous tension, or distorted tracings.

i. The Examinee's Story. Now it is time to discuss with the examinee the offense(s) under investigation. Ask him to explain in his own words what his connection or alleged involvement is with the case. The examiner should attempt to resolve any discrepancies or new issues which may arise, but must use care not to start interrogating.

During this phase, determine if you have any valid peak of tension material. Specifically inquire of the examinee about his knowledge of each piece of peak of tension material that may be used.

j. Introduction and Discussion of Test Questions. Prior to the interview, the examiner should have drafted proposed test questions. Then, unless the examinee changes pertinent portions of his story, it will only be necessary to assure that the questions are compatible with the vocabulary of the examinee. During the discussion of the crime, introduce each of the relevant or crime questions to the examinee and make sure he completely comprehends them. If you are going to use a guilt complex or hypothetical crime question, introduce it at this time also. Following this, introduce the control and/or irrelevant questions. I will not go into the criteria for formulating the various types of questions as that will vary according to the technique employed and your basic polygraph training. It is important that you review all the questions with the examinee and determine his answers

thereto. However, except for peak of tension tests, do not reveal the question sequence to the examinee. To do so may cause anticipatory responses that will make the charts difficult or impossible to evaluate properly.

k. Rationalize and Minimize. The last phase of the pretest is to rationalize the crime and examinee's possible participation therein. Minimize the moral seriousness of the crime, and if possible, project the cause and blame away from the examinee. It is at this point that the examiner should be particularly alert for pretest admissions and confessions. You should encourage the examinee's participation in the rationalization and minimization process. Should admissions be made, they should be explored without entering into an interrogation phase. Care must be exercised at this phase so that you do not destroy the rapport you have built with the examinee by unsuccessfully trying for a pretest confession. Merely provide the examinee with the opportunity to confess or make admissions if he now desires to do so.

The foregoing has outlined a suggested pattern of conducting pretest interviews. Obviously, each situation is a bit different from all others. Each pretest interview must be tailored to the situation. Thus, the key is this -- be flexible.

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DRIVE REDUCTION AND RADICAL BEHAVIORISM

BOOK REVIEW

By

Stanley Abrams, Ph.D.

Drive Reduction and Radical Behaviorism by Kenneth C. Basilio, Ph.D., Salem State College, Salem Massachusetts, BHF Printing, Auburndale, Massachusetts, 1973.

Basilio's book is essentially a brief description of various learning theories with an emphasis upon a Skinnerian approach. He characterizes different aspects of behavior through Skinner's theoretical system. This includes a brief explanation of the foundation for lie detection. Assuming that a liar is punished when caught, fear or guilt become elicits reactions appropriate to punishment and these in turn are recorded by the polygraph.

In the last portion of his book, Dr. Basilio added an appendix, "The Physiology of Lie Detection." It is not clear as to how this relates to the book as a whole except that it is an example of the difference between voluntary and involuntary behavior.

The physiologic foundation for polygraph responses and interpretations is presented with the role of the autonomic nervous system pointed up. He indicates that the sympathetic nervous system alerts and energizes the body for action which is in contrast to the normal relaxed, vegetative activity associated with the parasympathetic system. Basilio goes on to indicate the relationship among the thalamus, hypothalamus, autonomic nervous system, and various portions of the brain.

The clarity and completeness of this description, however, leaves something to be desired and one might also question the accuracy of some of the information presented.

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SO WHO'S AFRAID OF A POLYGRAPH TEST?

BOOK REVIEW

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By

Norman Ansley

So Who's Afraid of a Polygraph Test? by S. E. Turner, San Antonio: The Naylor Company, 1974, \$3.95.

This is not a book for the polygraph examiner. Rather it is for his subjects, clients, perhaps his waiting room. It is deliberately written in simple style, printed in large type, and meant to be no more than an elementary explanation of why employers use the polygraph, what the subject may expect during the interview, and some realistic ideas about what is and what is not apt to be acceptable to an employer.

The book meets its objective. Anyone might quibble a little over an example or statement, but the purpose is well served.

The author, S. E. Turner, is a licensed polygraph examiner in Texas, who is associated with a commercial polygraph service. His book will be useful to others in the same field.

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A B S T R A C T S

"SYMPATHETIC INFLUENCES ON CARDIAC RATE AND
CONTRACTILITY DURING ACUTE STRESS IN HUMANS"

Paul A. Obrist, James E. Lawler, James L. Howard, Kenneth W. Smithson, Philip L. Martin, and John Manning, Psychophysiology Volume 11, Number 4, July 1974, pp. 405-427.

Experiments are reported concerning an evaluation of sympathetic influences on heart rate and cardiac contractility in normal young adult humans during a stressful reaction time task. During the preparatory interval only vagal influences

on heart rate change could be found which were related to concomitant somatic activity. In expectation of the shock and for a more sustained period thereafter, sympathetic influences became manifested on both heart rate and contractility which were independent of concomitant somatic activity. In a follow-up study, the relationship was evaluated between blood pressure, as measured directly from the radial artery, and both contractility and heart rate. Sympathetic influences on the heart were not found to be secondary to depressor effects, although appreciable phasic decreases in blood pressure were sometimes found to follow the onset of large increases in heart rate and contractility. The data suggest that sympathetic influences on the heart are normally very minimal but are evoked by intense stress when the organism attempts to cope with the stress.

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VASOMOTOR RESPONSE TO COLD PRESSOR

William Lovallo and Arthur R. Zeiner, "Cutaneous Vasomotor Responses to Cold Pressor Stimulation," Psychophysiology Volume 11, Number 4, July 1974, pp. 458-471.

Two experiments are reported which tested the effect of cold pressor (CP) stimulation on cutaneous vasomotor activity. Both experiments confirm earlier findings that some Ss show decreased digital blood volume to CP (constrictors) while others show an increase (dilators). In Experiment I, it is demonstrated that the constrictor-dilator responses cannot be attributed to differential response to instruction. A superimposed reaction time task is shown not to change ongoing response to CP. Experiment II investigates the effects of levels of tonic activity upon response to CP stimulation in males and females by two methods: experimental manipulation of tonic level by shock and independent measurement of tonic sympathetic activity by other physiological measures (pulse amplitude and skin conductance). Resting levels of pulse wave amplitude are significantly correlated with response to CP, the higher the amplitude, the greater the time to blood volume rebound. The results tentatively support the hypothesis that constrictors and dilators differ in sympathetic vasomotor tonus prior to cold pressor.

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POLYGRAPH REVIEW

By

Bobby J. Daily

How would you score on a licensing examination? Are you sufficiently up-to-date about such subjects as psychology, physiology, instrumentation, test question construction, chart interpretation, interview techniques, etc? Are you prepared to undergo direct and cross-examination on polygraph subjects in court? A score of 9 or 10 is excellent, 7 or 8 is good, and below 7 may indicate some review is warranted. The review in this issue is on chart interpretation. (The answers are on page 276).

1. Answering distortions appear on the pneumograph inspiration stroke
 - a. with about the same frequency as on the expiration stroke.
 - b. with much less frequency as on the expiration stroke.
 - c. with much more frequency than on the expiration stroke.
 - d. exclusively.
2. When not due to mechanical malfunction, normally a plunging GSR tracing is most indicative of
 - a. a truthful subject.
 - b. an untruthful subject.
 - c. a steady increase in subject's resistance.
 - d. a steady decrease in subject's resistance.
3. In peak of tension tests, which of the following will most reliably indicate the peak of subject's tension?
 - a. the cardio tracing.
 - b. the GSR tracing.
 - c. the pneumo tracing.
 - d. All three tracings at the same time and place.
4. The duration and degree of individual responses on polygraph charts is most indicative of which one of the following?

4.
 - a. Subject's guilt.
 - b. Subject's knowledge of the crime.
 - c. The seriousness of the crime.
 - d. The intensity of subject's emotions.
5. On a set of charts you are evaluating, the cardio tracing on all charts is relatively horizontal. Which one of the following does this indicate?
 - a. No change in emotional tone.
 - b. Guilty knowledge.
 - c. Truthfulness.
 - d. Concern over another crime.
6. (T) (F) When the dicrotic notch is near the top of the cardio tracing, it usually means there is too much pressure in the cuff.
7. (T) (F) Extra systoles appear in the cardio tracing as a result of a premature contraction of a heart muscle.
8. (T) (F) A decrease in blood pressure could not be indicative of deception.
9. (T) (F) Changes in the inhalation-exhalation ratio of the pneumograph pattern may be indicative of deception.
10. (T) (F) Any change from the average or normal tracing must be regarded as a specific response or reaction.

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