

# APA MAGAZINE

The Magazine for the Polygraph Professional

November/December 2016

Volume 49,6

**52nd Annual APA Seminar**



August 27 - September 1, 2017



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Donald Krapohl  
Sabino Martinez  
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Stanley M. Slowik  
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### Deadlines

This issue closed on  
December 11

Deadline for January/February  
2016 issue is January 30

### Submission of Articles

The *APA Magazine* is published by the American Polygraph Association. All views, opinions and conclusions expressed in this magazine are those of the authors, and do not necessarily reflect the opinion and/or policy of the APA or its leadership. References in this magazine to any specific commer

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2016-2017

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## EDITOR'S CORNER

By Mark Handler



### **Important news about upgrading from Associate to Member**

Dear APA Membership,

Last seminar the association voted to amend the bylaws as they apply to membership status. We have had several requests from the membership asking for clarification on the process. Our president and president-elect asked me to send an email to help clarify the new requirements and as a reminder to those who still would like to advance their member status from Associate to Member, before the January 1, 2017 deadline.

Between now and January 1, 2017, if you have been an Associate Member for at least three years, completed a minimum of one hundred eight (108) hours of continuing education in topics directly related to polygraph testing, if you can document conducting 200 polygraph examinations, if you have attended at least one APA seminar, and if you pass the APA qualifying examination, your membership status will be upgraded to Member. If you are an Associate Member with a four-year degree, you can upgrade between now and January 1 without taking the qualifying examination, so long as you meet the other requirements to upgrade. After January 1, 2017, you must have been an APA Associate for two years before being eligible to upgrade.

To take advantage of this please email Lisa and provide your name and a good email address. President-elect Jamie McCloughan will send you a link to take the upgrade exam. This will be especially important if you do not have 60 hours of college credit because after the first of the year you will be



required to do so and cannot take advantage of this grandfather clause.

After January 1, 2017, there will be two paths to becoming a Member. Both paths will require two years of membership in the association as an Associate.

1. For those Associates who possess a 4-year college degree, you must attend one APA seminar, have 60 hours of continuing education and document that you have completed 200 polygraph examinations.
2. For those Associates who have at least 60 college credit hours, you must attend one APA seminar, have 60 hours of continuing education, document that you have completed 200 polygraph examinations, and pass an APA qualifying examination.

## New *MEMBER* REQUIREMENTS as of January 2017



Important Note: If a Member's membership is allowed to expire, their status is reduced to Associate. In order to re-attain Member status from Associate status, all requirements will need to be met again.



**AMERICAN POLYGRAPH ASSOCIATION (APA)  
CONTINUING EDUCATION SEMINAR  
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APA FED ID # 52-1035722

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Thursday 1:00 pm – 5:00 pm  
Friday and Saturday 8:00 am – 5:00 pm

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**CUTOFF DATE** for hotel reservations is **1/12/17** Individual departure dates will be reconfirmed upon check-in. (5 DAY CANCELLATION notice required)

**REGISTRATION FEE:** Pre-paid by December 30, 2016  
**\$250 APA Member/Applicant**  
**\$250 NMSFP Member\***  
**\$275 Non-Member**

**REGISTRATION FEE AFTER December 30, 2016**  
**\$275 APA Member/Applicant**  
**\$275 NMSFP Member\***  
**\$300 Non-Member**

**\*must be a paid up member of NMFSP**

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**TOPICS**

**GREG MILLER, ESQ.** and **MARK HANDLER**, APA Editor

- From Frye to Daubert & Beyond
- Courtroom Testimony: Pitfalls to Avoid
- Daubert Hearing Demonstration
- Q&A

**WALT GOODSON** – APA Chairman of the Board

- Countermeasurers
- Screening Examinations
- Administering Defensible Examinations
- ESS

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**.Tax Deductions:**

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**(The registration fee includes professional instruction, seminar materials, AM and PM Refreshment Breaks)**

**APA Cancellations Refund Policy:**

Cancellations received in writing prior to **12/30/16** will receive a full refund. Persons canceling **after 12/30/16 will not** receive a refund but will be provided with the handout material

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CES-Albuquerque, NM (Feb. 2-4, 2017) We can not possibly reach everyone who would be interested in taking part if this seminar. Please help us by making copies of the page for your co-workers and business associates. Thank you for your assistance.

Training & Seminars

# Polygraph Examiner Training Schedule

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**American Polygraph Association**  
**52nd Annual Seminar/Workshop**  
August 27 - September 1  
Las Vegas, NV

**Continuing Education Seminar**  
**Co-Sponsor New Mexico Polygraph Association**  
February 2-4, 2017 (Albuquerque, NM)

**National Polygraph Association**  
**Continuing Education Seminar**  
January 16-18, 2017 (Las Vegas, NV)

**National Polygraph Academy**  
**Basic Examiner Courses:**  
April 3 - June 9, 2017 (Richmond, KY)  
June 5 - August 11, 2017 (Amarillo, TX)  
Sept 11 - November 17, 2017 (TBA)

**PCSOT Courses:**  
June 12-16, 2017 (Richmond, KY)  
August 14-18, 2017 (Amarillo, TX)

**Advanced Continuing Education (ACE)**  
Courses: March 20-22, 2017 (Lafayette, IN)



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## Attention School Directors

If you would like to see your school's course dates listed here, simply send your upcoming course schedule to [editor@polygraph.org](mailto:editor@polygraph.org)





# NATIONAL POLYGRAPH ASSOCIATION



## 2017 SEMINAR & BUSINESS MEETING

January 16, 17, 18, 2017

Golden Nugget Hotel & Casino  
Las Vegas, Nevada

For Hotel Reservations Call 1-800-331-5731 and mention the National Polygraph Association 2017. Reservations must be made by **December 16, 2016** to receive Seminar Rate. Saturday arrivals are limited.

The 2016 Seminar and Business Meeting will be held at the Golden Nugget Hotel & Casino, Las Vegas, Nevada. Rooms rates for the seminar is \$ 59.00 per night (Sunday-Friday) excluding any applicable tax and energy surcharge. In addition the hotel charges a \$20 resort fee which includes many amenities normally incurred as additional charges.

## SCHEDULE

### Sunday, January 15, 2017

1:00 pm Open NPA Board Meeting  
Members urged to attend

### Monday, January 16, 2017

7:45 am Open Remarks  
8:00 —10:00 Persuasive Pre-Test  
10:00—10:30 Stoelting Vendor Presentation  
10:30—12:00 Persuasive Pretest (*cont*)  
12:00—1:00 Lunch  
1:00—3:00 Persuasive Pretest (*cont*)  
3:00—4:00 Putting Out Your Shingle

4:00 pm—6:00 pm Social Reception: Hosted by Complete Equity, Inc.

### Tuesday, January 17, 2017

8:00-10:00 Federal Zone/Federal You Phase  
10:00—10:30 Lafayette Vender Presentation  
10:30—12:00 Federal Zone/Federal You Phase  
12:00—1:00 Lunch  
1:00—3:00 General Business Meeting  
3:00—5:00 Plethysmograph (PLE)

### Wednesday, January 18, 2017

8:00—10:00 AFMGQT & Scoring  
10:00—10:30 Limestone Vender Presentation  
10:30—12:00 AFMGQT & Scoring (*cont*)  
12:00—1:00 Lunch  
1:00—1:30 Axciton Vendor Presentation  
1:30—5:00 Pharmacology & Chemical Countermeasures  
5:00 Closing Remarks

### Wednesday, January 18, 2017 (Dedicated PCSOT Training) Merion Classroom

8:00—12:00 Peak of Tension in PCSOT  
1200—5:00 PCSOT





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PCSOT Training: Yes  No

### Registration Cost:

Member: \$150.00 (advance)

\$175.00 (at door)

Nonmember: \$ 350.00\*

Credit cards accepted only on NPA website

**\*NOTE:** If you join the NPA prior to the seminar you can register at the member price. Annual Dues are \$100.00. (Application on the NPA website, [nationalpolygraph.org](http://nationalpolygraph.org).)

Mail registration and check to:

National Polygraph Association  
P.O. Box 460672  
Papillion, NE 68046

## SPEAKERS

**Dennis Westerman:** Lieutenant Westerman has 30 years of Law Enforcement, and currently serves as Lieutenant and Quality Assurance for one of Texas Department of Public Safety (DPS) Criminal Investigations Division's Polygraph Units. He is currently the Coordinator for Texas DPS Law Enforcement Polygraph School and has instructed for APA, AAPP and numerous other Federal and State organizations and associations. He was recognized as the 2012 Texas Association LE Polygraph Investigator of the Year.

**Matthew Mull:** Lieutenant Mull has served over 20 years as a Texas Trooper and for Texas DPS. He graduated from Texas DPS in 1995 and served in Special Crimes/Criminal Intelligence. He is a former coordinator for DPS Law Enforcement Polygraphs and has instructed there since 2007. He currently serves at DPS headquarters and is a Lieutenant in the DPS Polygraph unit.

**Gregg Mrochko:** Lieutenant Mrochko received his B.A., Administration of Justice from the University of Pittsburgh and graduated the Northeast Counterdrug Polygraph Program (NCTC) in 2004, administering polygraph examinations since that time. He is an adjunct instructor at (NCTC) and has instructed at NCCA. He is the Board President for the Polygraph Law Enforcement Accreditation organization and has provided advanced instruction to Senior Examiner courses in the U.S.

**Mark Holtmaster:** Sergeant Holtmaster received his B.A. Economics from University of Scranton. He has served with the Pennsylvania State Police since 1993 and an examiner since 2008. He is an adjunct instructor at the NCTC Polygraph Program and instructed at NCCA. Mark has also taught advanced instructions at Senior Examiner Courses in the U.S. Since 2011, he serves as the Polygraph Coordinator for the Pennsylvania State Police supervising more than 20 polygraph examiners across the State. He is also a member of the Polygraph Law Enforcement Accreditation (PLEA) organization, accrediting LE polygraph programs in the U.S.

**Patty Odum, RN, MSN, FNP-BC.** Patty is a board certified Family Nurse Practitioner. She graduated Summa Cum Laude from Western University of Health Sciences with a M.S. in Nursing. She graduated Magna Cum Laude from the University of Colorado with a B.S. in Nursing. Mrs. Odum has 22 years of nursing experience and provided comprehensive care as a nurse practitioner in Internal Medicine, Oncology, Geriatric and Hospice. She is currently an instructor at Marston Polygraph Academy in Pharmacology and Chemical Countermeasures.

**Chip Morgan:** Chip is a nationally recognized trainer and lecturer providing instruction for over 35 years at polygraph schools, national training seminars and colleges throughout the U.S. Canada and Mexico. Chip is a 1975 Backster school graduate and served as a Detective, Criminal Polygraph Examiner. He maintains a thriving private practice. He is the past president of the National Polygraph Association, International Brotherhood of Police Officers, Boise Police Association, Idaho Fire & Arson Investigators and several other professional associations. Chip is a Court Certified Expert in Idaho and California State Courts and the US Federal Court Systems. He has been a certified Instructor since 1980 and is a published author.

**Melanie Javens:** Melanie began employment at Complete Equity Markets in 1988 as receptionist. She quickly made her way up the ranks first as a word processor and then as an administrative assistant. She obtained her property/casualty and Life/Health insurance licenses and began her career in sales over 25 years ago. She currently underwrites Professional Liability for Safety Professionals, Polygraphists & Forensic Consultants and is President of three risk purchasing groups.



# 52nd Annual Seminar American Polygraph Association



© Tom Hallock/istockphoto

August 27 - September 1, 2017



Fellow Professionals,

Plans are underway for the 52<sup>nd</sup> Annual APA Seminar to be held August 27 thru September 1, 2017 in Las Vegas, Nevada. The conference will be held at the beautiful

J. W. Marriott Resort Hotel.

We are anticipating a large turnout based on the quality training classes being offered, coupled with a very favorable room rate. Please make your reservations early, as we expect to sell out our allotment of rooms.

There will not be an organized Tuesday night event. Plan a night on the town of your own choosing for that evening.

Shuttles will be provided from the Marriott to the Strip at various times during the week. The actual times and availability will be posted at the registration table during the seminar. Please remember to nominate deserving individuals for the various APA awards.

Interpretation services will again be offered in Classroom A on Monday through Friday for all classes. For those wanting to take advantage of these services, the cost will be \$100 per person if you pay at the door. Those paying in advance before arriving at the seminar will be charged \$50. Please take advantage of the discount by paying early so we can better project the number of headsets required. (No headset will be issued without payment.)

I would again like to thank all of our sponsors for their support.

See you in Las Vegas,

Michael Gougler

Seminar Chair



SUNDAY, AUGUST 27, 2017	
CLASSROOM A	
1:00 - 2:00 PM Avoiding the Pitfalls: Ethics for Polygraph Examiners Steve Duncan, APA Director	2:00 - 5:00 PM You Want Me to Ask What? Test Question Construction Steve Duncan, APA Director
SCHOOL DIRECTOR'S MEETING 1:00 - 3:00 PM (Room to be announced)	
APA WELCOME RECEPTION 6:30 - 8:30 PM	



MONDAY, AUGUST 28, 2017	
CLASSROOM A (disponible en Espanol)	
7:30 - 8:00 AM Break Sponsored by:	
8:00 - 9:30 AM OPENING CEREMONIES	
Call to Order -	J. Patrick O'Burke, APA President
Master of Ceremonies -	Michael C. Gougler, Seminar Program Chair
The National Anthem -	
Presentation of Colors -	
Pledge of Allegiance -	J. Patrick O'Burke, APA President
Taps -	Richard Pascuito
Welcome to Las Vegas -	
Invocation -	Barry Cushman, APA Director
9:30 - 9:45 AM Break Sponsored by:	
9:45 - 12:00 NOON Panel Discussion Gordon L. Vaughan, Moderator	
12:00 NOON - 1:00 PM Lunch on your own	
1:00 - 5:00 PM	
2:45 - 3:00 PM Break Sponsored by:	
(CONT'D)	



TUESDAY, AUGUST 29, 2017

7:30 - 8:00 AM Break Sponsored By:

CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
8:00 - 9:45 AM	8:00 - 9:45 AM	8:00 - 9:45 AM PCSOT Update George Baranowski, APA Director <b>PCSOT</b>

9:45 - 10:00 AM Break Sponsored By:

**APA ANNUAL BUSINESS MEETING**  
**10:00 AM - 12:00 NOON**  
**CLASSROOM A**

12:00 Noon - 1:00 PM Lunch On Your Own

1:00 - 2:30 PM	1:00 - 2:30 PM	1:00 - 2:30 PM



WEDNESDAY, AUGUST 30, 2017

7:30 - 8:00 AM Break Sponsored By:

CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
8:00 - 12:00 NOON	8:00 - 10:00 AM Test Question Formulation; What We Know, What We Think We Know, and What We Pretend to Know Mark Handler, APA Editor Raymond Nelson, APA Director	8:00 - 12:00 NOON

9:45 - 10:00 AM Break Sponsored By:

(CONT'D)	10:00 - 12:00 NOON Understanding Polygraph Test Outcomes; What Does the Test Result Really Mean Mark Handler, APA Editor Raymond Nelson, APA Director	(CONT'D)
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12:00 Noon - 1:00 PM Lunch On Your Own

1:00 - 5:00 PM	1:00 - 5:00 PM	1:00 - 5:00 PM
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2:45 - 3:00 PM Break Sponsored By: **TEXAS ASSOCIATION OF POLYGRAPH EXAMINERS**

(CONT'D)	(CONT'D)	(CONT'D)
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THURSDAY, AUGUST 31, 2017

7:30 - 8:00 AM Break Sponsored By:

CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
8:00 - 3:00 PM	8:00 - 12:00 NOON Lessons Learned About Testing Serious Sexual Assaults and Ethics Charles Slupski, APA Past President, AIIP School Director <b>PCSOT</b>	8:00 - 12:00 NOON

9:45 - 10:00 AM Break Sponsored By:

12:00 Noon - 1:00 PM Lunch On Your Own

(CON'T)	1:00 - 5:00 PM	1:00 - 2:45 PM Legal Issues Gordon L. Vaughan, Esq. APA General Counsel
---------	----------------	--

2:45 - 3:00 PM Break Sponsored By:

3:00 - 5:00 PM	(CON'T)	3:00 - 5:00 PM
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APA ANNUAL BANQUET AND AWARDS  
6:30 - 7:00 PM COCKTAILS  
7:00 PM DINNER



FRIDAY, SEPTEMBER 1, 2017

7:30 - 8:00 AM Break Sponsored By:

CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
8:00 - 12:00 NOON Pretest Interview Using Directed Lie Gary F. Davis, APA Director	8:00 - 10:00 AM	8:00 - 10:00 AM Progress of Research Regarding Polygraph in Colombia: A Look to the Automation and the Acquaintance Test Using Images Manuel Novoa, Director Latin American Polygraph Institute

9:45 - 10:00 AM Break Sponsored By:

12:00 Noon - 1:00 PM Lunch On Your Own

(CONT'D)	10:00 - 12:00 NOON	10:00 AM - 12:00 NOON Practice of Polygraph Use in Court Proceedings in Russia and the Eurasian Region Said Khamzin, APA Member
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12:00 Noon - 1:00 PM Lunch On Your Own

1:00 - 3:00 PM	1:00 - 3:00 PM	1:00 - 3:00 PM
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**3:00 PM**  
**CLOSING REMARKS**  
**James B. McCloughan**  
**APA PRESIDENT**



# President's Message

**Patrick O'Burke**

The holiday season is in full swing and I hope that all of you will have a wonderful and happy season this year. As we hear of the numerous tragedies that have been inflicted on our law enforcement recently we are painfully reminded that life is amazingly unpredictable for those who wear the uniform. These unprecedented attacks on police officers makes law enforcement seem like a much different job than when I started. I want to tell you about one such story.

San Antonio Police Department Detective Benjamin Marconi was tragically shot in my home town recently on the same day as three other officers were shot in America. Detective Marconi was working an extra duty traffic assignment on a Sunday morning when he was targeted and shot from behind while writing a traffic citation. This criminal was waiting near the police station to target a police officer because he was angry about a child custody matter. We have lost far too many police officers this year from people who are angry with the world. I can remember a time when the worst thing you had to worry about on a Sunday morning was being bored. Make sure that you hug your loved ones and tell them how much they mean to you this holiday season.

There should be some additional information in this issue of the Magazine regarding the changes that are coming to membership. Beginning January 1st, all new applicants to the APA will be an "Associate" for two years. There will no longer be a "Full Member" class, it will simply be "Member". For any "Associate" to upgrade to "Member" the Associate will be required to have a college degree, attend an APA seminar plus continuing education requirements, and have conducted at least 200 polygraph exams. There is an exception for those with a minimum of 60 college hours to take and pass a written examination in lieu of the four-year degree requirement. There is no exception if the Associate does not have at least 60 college hours. This is a first for the APA in requiring college to upgrade to "Member". No current member will lose any status they currently hold.





However, all memberships expire every year and dues are required on January 1. The change that you need to know about is that if you allow your membership to lapse that all members will be required to start back as an “Associate” for two years. This change was implemented to encourage people to value and retain their membership. I am strongly encouraging all members not to allow their membership to lapse as there could be a consequence. Your membership and participation is valuable and we want you in so please make sure the National Office receives your payment.

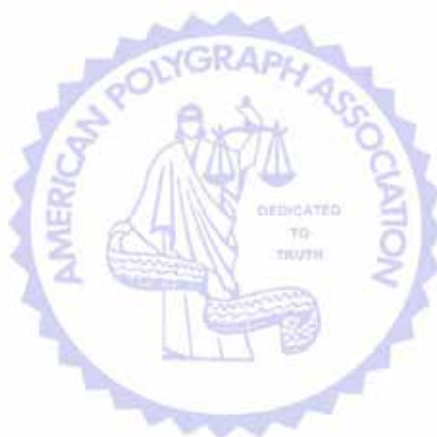
I want to say thank you to Jose Anibal Torreblanca and Manuel Novoa for inviting me to speak at the Association of Latin American Polygraph Examiners (ALP) seminar recently in Bogota, Columbia. The ALP held their twentieth anniversary conference during October. The conference was attended by over 185 polygraph examiners from Columbia, Peru, Guatemala, Mexico, Salvador, Honduras, Venezuela, Panama and Ecuador. The ALP was one of the first polygraph associations to pledge their support for the APA’s Standards of Practice and become a Divisional Affiliate. This was evident at the conference as there were a number of outstanding speakers that presented on professional polygraph best practices. Columbia is a beautiful country and I wish that I had more time to see it during the conference. I am hopeful that with the strong polygraph presence that the American Polygraph Association will be able to sponsor an international conference in Cartagena in 2018. Keep that on your calendars as we explore this possibility.



Chairman Walt Goodson has tasked retired Dallas Detective Jim Gallagher to head a committee to work a model policy to quality control that the polygraph profession can embrace. This is an integral part of being accepted as a forensic science and has been something I have looked at for several years. It is a daunting task that must work for agencies with their own internal programs, as well as the single examiner in a remote office. We are looking for input and have involved other associations in this large project that must produce a simple and workable product.

I have been working on drafting an application for ASPA, the Association of Specialized and Professional Accreditors. This is a unique organization that provides standards and guidance for accrediting bodies. Our membership in this organization will provide recognition and guidance for the APA's internal program for school accreditation. I am hopeful that this step will pave the way for colleges and universities to accept polygraph school training in lieu of hours for college degrees, and make polygraph further accepted by forensic sciences.

I look forward to hearing from you on any subject that you feel is important. I wish each of you the best for the coming holidays. I am going to close for now. I feel like finding a police officer and buying him a cup of coffee and tell him thanks. Maybe I can tell him stories about what it was like before I retired from the job. Merry Christmas and God bless.



# Board of Directors' Reports

**George H. Baranowski**  
**Director**

## **Biased Test Objective Attitudes**

For various whys and wherefores, unfortunately there are times when some polygraph examinations are conducted when both the procedure as well as the outcome are questionable. To some examiners, I agree that this concern might sound rudimentary. However periodically as examiners, we need a reality check to “re-evaluate” what our objectives truly are in conducting a forensic polygraph examination. For example, over the years I have talked to examiners at various conferences, and in our discussions, I brought up the issue of their objective in conducting an examination. Interestingly, not everybody, but many said “To get that confession” about the crime or the case that was under investigation. Some even added, “He keeps saying he didn’t do it but I know he did.” In other words, saying he’s going to do the test to prove he did it. Other examiners responded, “To get the truth out of this guy” and still others stated the objective was the “To focus the investigation to show he was the one.” I never heard from anyone that I talked to about this, ever saying anything

like, “render an Unbiased Opinion.” In fact, amazing enough, the mental state of those examiners I talked to, often gave me even a prediction as to the “Guilt of the suspect” even before the test was even conducted. I think we would agree that this is a risky situation. Your skills and reputation are always on the line.

The obvious point here is that we have polygraph examiner specialists who unknowingly have developed a distorted perception as to what their main objective is in this examination. It often manifests itself through the mental set of being a law enforcement officer or federal agent. They have worked many cases with the same investigator and trust his or her judgment. We all have experienced the investigator who brings a suspect in for testing and makes the statement something like, “He’s the guy, we have eye witness testimony, and we’re probably going to find his prints all over the place.” Sounds good, but what you’re hearing is that the perception of the event is quite possibly distorted.

In other words, what appears to be reality, may not be so. We forget that investigators are also human and they can become emotionally involved in the case. So, if



we as examiners go into our testing laboratory and allow ourselves to be contaminated by the influence of an investigator or even a superior, the basic concept of our discipline has been undermined. We are no longer seekers of the truth, but administrators of a placebo designed to elicit some sort of admission. This concept does not fall within the professional discipline of Forensic Psychophysiology. The point of this discussion is that we must remain objective, even about the information we are given prior to the examination, and continue this Unbiased attitude even during our pre-examination interview.

I realize that this may sound elementary to many of you, however we are human and even the best of us can fall into the trap of emotional involvement, especially when it pertains to crimes against children. Our professionalism and training and ethical standards have the power to keep this a rarity. It is important to remember that our very core is to administer a reliable and valid psychophysiological procedure while remaining unbiased.

**Gary Davis**  
**Director**

As the year draws to an end, it is time to reflect on the accomplishments of our profession. For the first time since the

EPPA was passed we face new challenges about value of our profession. All Forensic Science is coming under scrutiny from the government and members of the press. The President's Commission on Forensic Sciences has been justifiably critical about the quality and reliability of evidence accepted in court and the way law enforcement uses "evidence" it develops.

The FBI and several major cities had hundreds of cases reopened due to improper processing of evidence. Some defendants were subsequently cleared when evidence was re-tested.

State and federal courts have reconsidered the value and usefulness of polygraph testing. The APA meta-analytic survey and research by David Raskin, Charles Honts, John Kircher, Don Krapohl, Ray Nelson, Mark Handler and others has furthered the credibility of our profession. But there is much to be done.

Since the beginning, our opinions have been subjective with little consistency between examiner. Cleve Backster tried to increase objectiveness with numerical scoring. But complex rules and measurements continue to create differences in scoring. Adoption of ESS made great strides toward uniform scoring, but differences remained. Several months ago,



I attended a state association meeting where participants scored each other's charts using ESS. During the exercise the group spent over 20 minutes arguing over the numerical score to be assigned to the breathing channel. There was great disagreement about when the reaction began and ended.

The same thing occurred when scoring EDA. Arguments between examiner raged over when a reaction began, when it ended and if the reaction was influenced by a finger movement in the cardio. Scoring the cardio had similar arguments.

Scoring the plethysmograph was a complete disaster. The main argument was whether the size of the compression was more powerful than the duration or was duration more significant than compression. Since ESS uses visual comparisons, this difference is difficult to resolve. Fortunately, each of the instrument manufacturers software will measure the strength of reaction in the plethysmograph allowing an accurate determination of the strength of reaction. That said, if we are to survive must embrace computer analysis of data.

The primary advantage of computer analysis is the measurement of reaction size is consistent. What the computer measurers today, will be replicated repeatedly.

This cannot be said about our visual evaluation. It is these completely objective computer measurements that will insure the future of polygraph. These concerns don't just impact the private examiner but government and law enforcement examiners as well.

We should already know that we can't detect lies. The data we gather can be cause by a variety of stimuli. But, we also know that published research shows the magnitude and distribution of reactions in a Comparison Question Test create highly accurate inferences of truth or deception, certainly well above chance levels.

What this means for our profession, is that if we are to survive, we must adopt the scientific method, embrace all the tools available to insure the accuracy of our opinions and recognize there is no perfect test. Errors occur regardless of best intentions and methodology. But even with errors, do the tests we conduct have value? I believe they do!

On a happy note on December 6, 2016, I had the honor of attending the inaugural meeting of the Minnesota Polygraph Association at the Anoka County Sheriff's Office. The association is a newly minted Affiliate of the A P A. They should be congratulated on their commitment to professionalism and to the American



Polygraph Association.

On January 1, 2017 membership status rules will change for new and some current members. The increase emphasis on college education is a forward-looking commitment by the APA to insure we take a lead in field of credibility assessment. A college education has become the minimum requirement for employment in the forensic sciences. Like most changes there will be resistance but the future is ours to command.

Since my last posting, I have heard numerous complaints about members engaging in practice outside APA Standards of Practice for PCSOT. The most common complaint relates to question formulation and length of tests. According to some, PCSOT examiners are conducting examinations lasting as little as 45 minutes. While I urged those who complain to file a grievance, no one has stepped forward to address these issues. I would remind you that this is the type of testing that led to the passage of the EPPA. After the passage of the EPPA membership in the APA dropped by around 1000.

Mike Gougler has started to solidify the 2017 Seminar in Las Vegas. Visit the APA web site for more information and to register. The board works hard to develop a program to address contemporary issues

and the training needs of the membership. If you have suggestions for training or are interested in making a presentation contact a member of the board.

I want to thank you for the opportunity to serve on the Board of Directors and wish you and your families a happy and save holiday.

**Steven Duncan**  
**Director**

Hello again, APA Members. I trust all of our Members had a good Thanksgiving and are finishing out the year with prosperity and good health. The Board and the National Office are still busy preparing for another year of progress.

The Ethics and Grievance Committee is working several Cases and continues to address the complaints as received. Our Complaints continue to be limited which is good thing. Again, this is evidence that we are following our guidelines and best practices. Work continues on a Committee Policy with a goal of presentation to the Board at our March Meeting.

As a Board Member I have continued to assist Members with issues as requested and, as always, I am here to help with problems if I can. Feel free to call or email me if I can be of assistance to you.



I close hoping all of you have a happy and healthy Holiday Season.

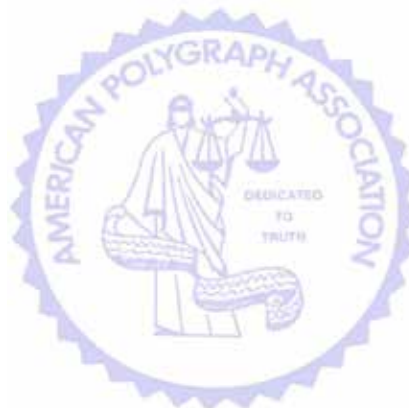
**Sabino Martinez**  
**Director**

Greetings from San Antonio, Texas!

First and foremost, I would like to apologize to the membership for not having communicated to you earlier in our previous publication and second I would like to express my gratitude for your vote of confidence. In our initial meeting with President O’Burke, I was tasked with the responsibility of heading the Professional Development Committee. President O’Burke requested I develop paperwork to keep track of the members’ continuing education. For convenience sake, I developed forms to assist the membership in reporting continuing education hours. While it is not a requirement, and solely the responsibility of each member, (See APA Standards of Practice), I hope that

all of you voluntarily take advantage of President O’Burke’s new ideas or send me an email expressing your disaccord. It is also my duty to approve any hours that will be counted towards continuing education, so I encourage you contact the APA National Office for approval of any class or seminar in your area prior to attending. We also developed a critique sheet to solicit feedback from the membership on instructors and the value of their presentation. I have received several requests from members who expressed a desire to volunteer and I will be contacting you soon. I wish everyone happy holidays and a prosperous New Year!

Para todos los miembros de habla hispana les mando un cordial saludo y mil gracias por su voto de confianza; también quiero desearles lo mejor en estas fiestas navideñas y un próspero año nuevo. Los invito a todos ustedes a que se comuniquen conmigo cuando necesiten ayuda en español.



# APA Files Amicus in Support of Polygraph Admissibility in Alaska Supreme Court

The American Polygraph Association filed, on December 6, 2016, an Amicus Curie (friend of the court) brief with the Alaska Supreme Court in *Alaska v. Alexander* (now styled as *Alaska v. Sharpe* due to the consolidation of a similar case for consideration by the Court). The brief, authored by Gordon Vaughan and with the assistance of several APA members including Ray Nelson, Mark Handler and Don Krapohl, argued that the Alaska Supreme Court should affirm the trial court and Court of Appeals decision admitting polygraph evidence in the criminal trials of the defendants Sharpe and Alexander. The brief sets out, in detail, the history of the treatment of polygraph admissibility by the Courts and the scientific study of polygraph that supports admissibility. The Summary of Argument section of the Brief is included below. Questions regarding this case can be directed to APA General Counsel Gordon Vaughan at: [gvaughan@vaughandemuro.com](mailto:gvaughan@vaughandemuro.com).

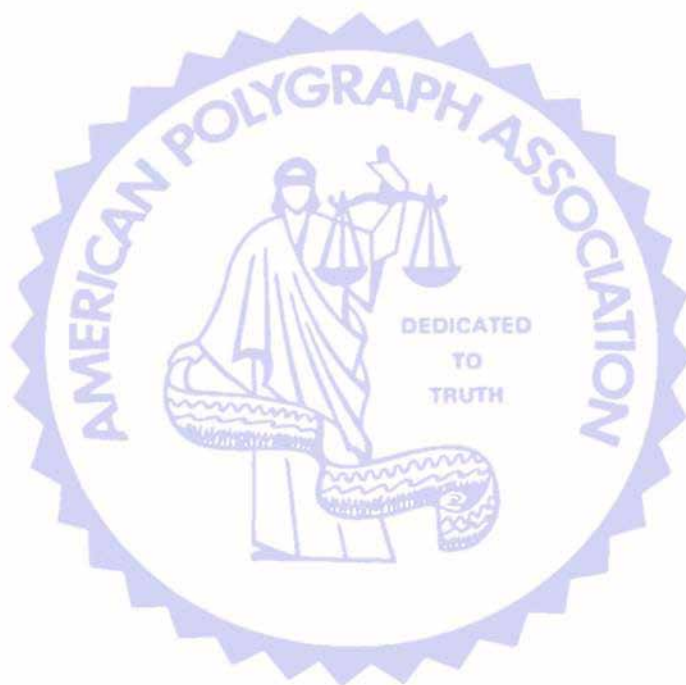
## Summary of Argument

Forty-six years ago, this Court in *Pulakis v. State*, 476 P.2d 474 (Alaska 1970), declined to permit admission of polygraph evidence following consideration of the then-available scientific literature. This Court was careful to note that “[t]his is not to say that the worth of polygraph evidence cannot ever be proved to the satisfaction of this court” and that “acceptance of polygraph tests must await the results of more persuasive experimental proof of reliability.” *Id.* at 479. In 1999, in *State v. Coon*, 974 P.2d 386 (Alaska 1999), this Court adopted the standard for admissibility of scientific evidence set out in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993). In the 46 years since *Pulakis*, there has been no apparent occasion in which this Court has, under the *Daubert/Coon* standard or in the context of a developed evidentiary record regarding the current state of scientific study of polygraph, considered admissibility of polygraph evidence.

Since *Pulakis*, there has been substantial improvement in polygraph instrumentation and technique and polygraph examination standardization and training, along with a wealth of new and supportive scientific research providing that which this Court lacked in 1970 – “more persuasive experimental proof of [polygraph] reliability.” In fact, of the 57 studies accepted in the 2002 National Academy of Science review of polygraph, National Academy of Science, *The Polygraph and Lie Detection* (2002) 54 (94.57%) were published or reported after *Pulakis*.



It is the position of the Amicus that the State is wrong in its argument that polygraph evidence is not, for purposes of Daubert/Coon, reliable as it cannot be empirically tested, has no known error rate, is not subject to standards, and is not a field of science for which there is general acceptance. The wealth of peer-reviewed scientific study of polygraph establishes its testability and reliability – with a known decision accuracy rate in the high 80th to low 90th percentile and a corollary error rate of just under and just over the 10th percentile. Professional and other organizations such as the APA and the American Society for Testing and Materials (“ASTM International”) have established standards for polygraph testing and data analysis. Additionally, while survey data is uneven, when psychophysicologists familiar with the relevant scientific field are polled, the most recent survey data suggests that such scientists generally accept the results of this peer-reviewed scientific study.



# American Polygraph Association

## Antitrust Compliance Program

### Introduction

The American Polygraph Association (APA) is a not for profit membership corporation incorporated under the laws of the District of Columbia. It has approximately 3,000 members. The majority of the members are polygraph examiners, and fall in the categories of full members or associate members. Persons who have demonstrated professional or scientific interest in promotion and advancement of the polygraph profession through polygraph research or instrumentation may join as Science and Technology affiliates. A full member must be a graduate of a polygraph education program that substantially meets APA accreditation standards at the time the member graduates; must have completed at least two hundred polygraph exams using validated polygraph techniques as taught by APA accredited programs; and must have a baccalaureate degree. Associate members must be graduates of a polygraph education program that substantially meets APA accreditation standards at the time that the member graduates. Associate members may upgrade to full membership upon completing certain requirements relating to education and or experience.

All APA full members and associate members must conduct their practices in full conformance with the APA Standards of Practice and Code of Ethics.

APA members include polygraph examiners practicing in the United States and in many foreign countries. APA accredits polygraph education programs both in the United States and in foreign countries.<sup>1</sup> APA has Division affiliates which are organizations that agree to comply with certain APA Standards of Practice and Ethics requirements.

### Antitrust Exposure for Associations and Association Members

The basic U.S. antitrust law (the Sherman Antitrust Act) is a conspiracy statute that prohibits two or more entities from engaging in conduct that unreasonably restrains trade.

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<sup>1</sup> If APA conducts business in foreign countries, it may be subject to the antitrust laws of each country in which it does business.



In general terms, the Sherman Act prohibits competitors, directly or indirectly, from entering into agreements to fix prices, rig bids, allocate customers or territories or boycotting or refusing to deal with vendors or competitors. These types of violations are what are known as “*per se*” violations. That means that if a group of competitors are found to engage in one or more of these practices, the Court will not consider any excuses.

A “*per se*” violation of the Sherman Act subjects the violators to civil and criminal suits by the Department of Justice, civil and sometimes criminal suits by State Attorney Generals and treble damage suits by private plaintiffs. Individuals convicted of “*per se*” criminal violations of the Sherman Act are guilty of a felony and face mandatory jail sentences of up to 10 years.

All individuals, corporations, or other entities that violate the antitrust laws are also subject to civil penalties and private litigation that may result in treble damage awards.

Trade and professional associations may provide a forum for antitrust violations. At trade and professional association meetings, groups of competitors gather and unless an antitrust compliance program exists, the discussion may involve pricing. Such discussions can lead to direct or indirect agreements on what is a “fair” price or what is a “minimum” price to charge customers. If such an agreement is reached at a trade or professional association meeting, the individuals involved, the companies represented by those individuals, the trade or professional association and the trade or professional association staff attending the meeting could all be found to have committed a “*per se*” violation of the Sherman Act and be subject to the criminal penalties, including jail, provided by the Act.

In addition to “*per se*” type violations, the Sherman Act also prohibits conduct that involves a less serious type of violation that is generally described as an “unreasonable” restraint on trade that does not fall in the “*per se*” category. Cases brought against trade and professional associations under this theory are civil cases which involve monetary damages and possible injunctive relief. These cases involve allegations such as unreasonable membership restrictions



by an association or utilization of an association certification or standards program to “unreasonably restrain trade.”

“*Per se*” and “unreasonable restraint of trade” cases are usually prosecuted by the Antitrust Division of the Department of Justice. The Antitrust Division is the only federal antitrust agency with criminal enforcement authority. However, there is a second federal antitrust agency, the Federal Trade Commission (FTC) that has a broader range of enforcement authority than the Department of Justice.

Section 5 of the FTC Act declares that all unfair methods of competition or unfair or deceptive acts or practices affecting interstate commerce are illegal. However, the statute does not define what is an “unfair method of competition” or an unfair or deceptive act or practice.”

In recent years, the FTC has used Section 5 of the Federal Trade Commission Act as a basis for attacking trade and professional association codes of ethics that restrict the right of members to advertise; trade and professional association codes of ethics that declare it is “unethical” for a member to solicit another member’s customers; and trade and professional association codes of ethics that restricts a member from offering another member’s customer a discount to switch vendor’s.

The FTC has also attacked association minimum fee schedules and actions by associations to induce state legislatures to prohibit second level professionals from performing certain services previously restricted to first level professionals. In most cases, FTC actions result in Cease and Desist Orders against the associations. However, in certain cases, the FTC has the authority to seek civil penalties and disgorgement of illegally obtained profits.

Both the Antitrust Division of the Department of Justice and the Federal Trade Commission have repeatedly emphasized that trade associations, professional associations, and corporations need to establish a culture of antitrust compliance by establishing comprehensive antitrust compliance programs specifically directed at the type of antitrust risks to which the organization has the most exposure.



To establish a culture of antitrust compliance, the association should adopt a custom-designed antitrust compliance program, implement the program in a meaningful manner, communicate the details of the program to officers, directors, members and staff, set up a schedule for re-education updates and establish a “whistle-blower” program to encourage members and staff to report possible antitrust violations without fear of reprisals or loss of employment.

It is with this background, that the American Polygraph Association has established its antitrust compliance program.

### **How the Antitrust Laws Apply to APA and Its Members**

#### **I. Description of APA**

APA is a professional association of polygraph examiners and organizations, corporations and persons who have a professional or scientific interest in polygraph research, instrumentation and the profession.

APA establishes standards of practice and ethical standards and accredits polygraph training institutions. APA regularly holds educational meetings for members and supports polygraph research and training activities and publishes a peer reviewed journal. In its “Mission Statement,” APA states that one of its goals is: “Governing the conduct of members of the Association by requiring adherence to a Code of Ethics and a set of Standards and Principles of Practice.”

Some polygraph examiners work for their own companies. Some polygraph examiners work for larger organizations that provide polygraph services to the public, corporations and the government. Some polygraph examiners work for government agencies.

#### **II. Competition**

Organizations and individuals providing polygraph services to the public sector and to government agencies are direct competitors. Polygraph examiners who act to “govern the conduct” of other polygraph examiners are engaged in antitrust sensitive conduct in that they collectively may restrict what other competitors can do. There are certain types of conduct by an



association and its members that are so egregious from an antitrust perspective that they are considered to be illegal “*per se*.” This means that if it can be proved that the association and its members engaged in this type of conduct, there are no defenses or excuses. Individuals found guilty of *per se* violations can be found to be subject to criminal penalties, including jail.

There are other types of antitrust conduct that are considered less serious. These types of conduct are covered by the antitrust “rule of reason.” Under the “rule of reason,” a court will find that this type of conduct violates the antitrust laws when it can be shown that the association and its members have the power to affect prices in a given market and where the anti-competitive effects of the conduct in question outweigh the pro-competitive benefits.

The following examines both categories of conduct with specific reference to the conduct of APA and its members.

### III. “*Per Se*” Antitrust Violations

#### A. Price Fixing

An agreement by a group of professionals to fix the price that they charge for their services is a “*per se*” violation of the antitrust laws. In this context any agreement that “affects” prices will be considered the same as an agreement to “fix” prices.

As competing professionals, polygraph examiners may not agree on:

- 1) Amounts to charge for various types of polygraph exams;
- 2) An amount of surcharge to add to the base amount for additional services;
- 3) What services are to be included in a base charge and what services should be subject to an extra charge;
- 4) What is a “fair” minimum charge for a polygraph exam?
- 5) Whether to charge for missed appointments;
- 6) Whether or not to charge interest for late payments or when to start charging interest or the amount of interest to charge;
- 7) Whether to include one certified copy of the final report in the base price or whether to charge for additional copies; and
- 8) Any other matter that affects the price of the services offered.



## B. Customer Allocation

It would be illegal and a *per se* anti-trust violation for a group of polygraph examiners to agree to allocate, assign or divide customers. As an example, they could not agree that all requests for service from Customer A will go to Examiner X and all requests for service from Company B will go to Examiner Y. Customer allocation agreements take various forms including:

- 1) Agreements not to solicit certain accounts;
- 2) Agreements to quote “high prices” to non-favored accounts;
- 3) Agreements to provide poor service to accounts coming from a co-conspirator; or
- 4) Agreements to divide an account.

## C. Territorial Allocation

Group of competitors cannot agree to limit offering services to specific geographic areas.

1) It would be illegal and a *per-se* anti-trust violation for several polygraph examiners, all of whom are licensed to provide services in a certain state, which has five major cities, each to agree to provide services in one of the five cities and not to provide services in the other four.

Similarly, it would be illegal for two firms of polygraph examiners located in the same city to agree that one firm will provide services only to customers located on the east side of the city and that the other firm will only provide services to customers located on the west side of the city.

## D. Bid Rigging

It would be illegal and a *per se* anti-trust violation for two or more polygraph examiners to enter into an agreement to affect or rig a bid for services. This would include:

- 1) Agreeing that if four jobs are up for bid, Examiner A will bid low on Job X and other examiners will bid high;
- 2) Agreeing to alternate bidding high and low to ensure that all get a “fair” market share;
- 3) Refusing to bid on certain jobs to protect the “favored” bidder;



- 4) Agreeing to submit an intentionally high bid to make sure that a bid from a friendly competitor is accepted; or
- 5) Engaging in any other bidding conduct designed to make sure that a favored bidder is successful.

E. Boycotts or Refusals to Deal

It would be illegal and a *per se* anti-trust violation for two or more polygraph examiners to agree to refuse to deal with a competitor or vendor offering a legitimate product or service to the market. As examples:

1) Vendor A and Vendor B make competitive models of polygraph machines. Independent tests show that Vendor A's machines are better than Vendor B's machine. APA could publish the test results but could not recommend that all members buy only brand "A." APA could publish the test results and recommend that members consider the test results when making equipment purchases.

2) Certain states license polygraph examiners. APA may require that regular members operating in states with licensing requirements not only meet state licensing requirements, but also meet additional and more stringent membership requirements. APA could not require that members in a state with licensure requirements limit referrals only to other APA members in that state.

The antitrust statutes are conspiracy statutes prohibiting agreements among competitors to engage in the practices set out above. Acting unilaterally and not pursuant to any agreement, an individual polygraph examiner can set whatever prices, deal or refuse to deal with any customer or bid or not bid on any job, based on his or her own economic objectives.

F. Association *Per Se* Liability

If association members engage in conduct that is "*per se*" illegal while attending an association meeting and the association, directly or indirectly, has knowledge of such illegal activity, the association and the association staff who participate in the illegal conduct, directly or indirectly, may be held to be co-conspirators and equally liable.



As an example, if the members of the association decided to establish minimum fee levels at an association Board meeting and an association staff member sat through the entire meeting, took minutes, including the details of the minimum fee agreement, the association and the staff members could be found guilty of a criminal antitrust violation and the staff member would face criminal penalties including a jail sentence of not less than one year or more than ten years for engaging in a conspiracy to fix prices.

#### IV. Rule of Reason Antitrust Conspiracies

As a professional association, APA provides benefits for members that enable them to compete more effectively. APA requires that members meet certain standards and comply with Standards of Practice and a Code of Ethics. APA establishes standards that educational institutions with programs in polygraph education must meet to be accredited by APA.

Since not every polygraph examiner, even if licensed in the state in which he or she practices will meet APA membership criteria and since not every school that offers a program in polygraph education will qualify for APA accreditation, potential antitrust issue arises.

If APA's membership criteria do limit the ability of state licensed polygraph examiners who do not meet APA's membership criteria to compete in the marketplace, then there is conduct that, on its face, may be considered a concerted action by a group of competitors that restrains trade.

The conduct in question does not fall in the *per se* category and, as such, will be evaluated under the antitrust "rule of reason." Under the "rule of reason" the question is "Does the association have the power to affect a defined market?" If so, do the anti-competitive effects of the conduct outweigh the pro-competitive benefits? If the anti-competitive benefits do outweigh the pro-competitive benefits we have an unreasonable restraint on trade that arguably violates the antitrust laws.

For purposes of anti-trust consideration, a person claiming an anti-trust violation may argue that APA membership has economic value and that non-members may face impediments to employment in certain markets.<sup>2</sup> However, as a professional organization APA is entitled to

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<sup>2</sup> Although United States District Court for the District of Arizona, in the case of *Haswood et al. v. American Polygraph Association, et al.* (Civ. 14-00253 PHX-GMS) implied that with regard to accreditation of schools APA does not have market power, it never actually ruled on that issue as it dismissed the case on procedural grounds including lack of standing as to certain plaintiffs and failure to allege antitrust injury as to the remaining plaintiffs.



set reasonable membership criteria. Also, although certain states may require some form of APA membership for licensure, such action is state action, not APA action.

APA's requirements for membership must be established based on specific criteria that the association believes are important to establish a skill level necessary for a highly qualified polygraph examiner.

As a professional organization, APA can adopt membership criteria that require a high level of skill sets rather than a minimum level of skill sets as long as the purpose of the practice is not to restrict access to the profession.

Membership in APA is open at various levels and the requirements for membership are designed to encourage high levels of professional conduct for the benefit of the public. Polygraph examiners who do not meet APA's requirements for membership are free to practice their profession subject to any state licensing requirements and APA does not engage in conduct aimed at denying non-members from access to the market.

APA's membership restrictions have pro-competitive benefits that outweigh the anti-competitive risks and thus strongly argue for meeting the test of the "rule of reason."

Where professional organizations establish education standards for education and training to be used by schools which train polygraph examiners, such standards, in order to meet the "rule of reason" should be reasonably designed to promote a level of educational achievement that will produce graduates who have skill sets necessary to achieve an appropriate level of professional competence. The level of professional competence need not be a minimum level but can be a higher level as long as APA has a rationale and reasonable substantiation for believing that the level of professional competence results in properly qualified graduates. If APA can show that its accreditation standards can be substantiated on a rational and reasonable basis and are not designed to keep qualified educational programs out of the market, APA's conduct should meet the requirements of the rule of reason.

APA's accreditation standards are developed by the School Accreditation Committee and approved by the APA Board of Directors. All the components of the standards are carefully reviewed during the developmental process and the final document reflects the opinion of the Committee and the Board as to what standards are necessary for a school polygraph educational program. The standards are designed to protect the public by accrediting educational programs that will produce highly qualified polygraph examiners. Accreditation by APA is voluntary. A



full or associate member of APA need not have graduated from an APA accredited educational institution but rather one that meets the accreditation requirements at the time of graduation.

APA does not advocate that polygraph examiners who have not graduated from an APA accredited educational program be denied access to the market.

It therefore appears that the APA accreditation practices meet the requirements of the “rule of reason.”

## V. Adoption of Antitrust Compliance Program

In order to ensure that APA and its members do not engage in practices that may violate the antitrust laws, APA has, by vote of the Board of Directors, adopted this Antitrust Compliance Program. As part of this program APA will follow the following practices.

### (A) *At Association Meetings:*

- (1) *Do not* discuss current or future prices (be very careful of discussions of past prices).
- (2) *Do not* discuss what is a fair profit level.
- (3) *Do not* discuss an increase or decrease in price.
- (4) *Do not* discuss standardizing or stabilizing prices.
- (5) *Do not* discuss pricing procedures.
- (6) *Do not* discuss cash discounts.
- (7) *Do not* discuss credit terms.
- (8) *Do not* discuss surcharges such as additional charts for copies of reports.
- (9) *Do not* discuss controlling sales.
- (10) *Do not* discuss allocating markets.
- (11) *Do not* complain to a competitor that its prices constitute unfair trade practices.
- (12) *Do not* discuss refusing to deal with a competitor because of its pricing or distribution practices.
- (13) *Do not* attend “rump” (informal meeting) sessions in connection with association meetings.



(B) *As to Self-Regulation and Membership Policies:*

- (1) *Avoid* restrictions on dealing with nonmembers.
- (2) *Avoid* unreasonable exclusions from membership, especially if there is a business advantage in being a member.
- (3) *Avoid* limitations on access to association information and publications, unless the limitation is based on protection of trade secrets or failure to provide data to an information exchange program.<sup>3</sup>

(C) *As to Ethical Codes:*

- (1) *Do not* require other members to refuse to deal with any member violating the association's code of ethics.
- (2) *Do not* arbitrarily enforce the code.
- (3) *Do not* impose unreasonably severe penalties for violations of the code.
- (4) *Do not* promulgate or enforce regulations or policies which have price-fixing implications, such as preventing the advertising of prices.

(D) *Antitrust Compliance Education*

As part of APA's Antitrust Compliance Program:

- (1) APA's Antitrust Compliance documents will be published on the APA website and all members will be encouraged to review the documents.
- (2) APA will have an annual antitrust compliance education session as part of a Board meeting.
- (3) APA will have an annual Antitrust Compliance Education session for APA staff.
- (4) APA will send a copy of its Antitrust Compliance Program to all Divisions and obtain their agreement to comply with the program.
- (5) APA has adopted an Antitrust Whistleblower Policy and will provide all staff members with a copy of the APA Antitrust Whistleblower Policy (attached as Exhibit A).

---

<sup>3</sup> Non-members can be charged a fee that is greater than the fee charged members for purchasing publications or attending educational program. The fee differential must reflect the cost incurred by members in developing and production of the publications or program.



(6) APA will read the Antitrust Compliance Statement (attached as Exhibit B) before all Board meetings and membership meetings.

## VI. Antitrust Investigations

### A. Allegations Regarding Antitrust Violations

In the event that any allegations of possible antitrust violations are reported to APA's staff or APA's volunteer leadership, legal counsel will be contacted immediately. Legal counsel will make a thorough investigation of the allegations and report the results of the investigation to the APA Board of Directors with a recommendation for appropriate action.

### B. Federal Trade Commission (FTC) or Antitrust Division, Department of Justice (DOJ) Investigations

#### 1) Written Inquiry or Subpoena

In the event that the association receives a written inquiry or subpoena from a federal or state antitrust agency, the inquiry or subpoena will be immediately sent to legal counsel for review.

#### 2) Visit by FTC or DOJ Investigator

An APA staff member shall be appointed as the responsible person to meet with any FTC or DOJ investigator who visits the association offices without warning and requests access to books and records of the association or requests to interview employees.

If such a visit occurs, the responsible staff person should obtain the name of the investigator, his or her contact information and ask to look at the person's identification.

The staff person should ask the investigator to explain the purpose of the investigation and then politely state that it is the policy of the association to cooperate with all government investigations but before answering any questions or providing access to any files or documents, the staff person must consult counsel.

The investigator should be asked to wait in the office reception area while staff person calls counsel and receives advice on how to proceed.

In the event that the investigator has a subpoena, the staff person should get a copy of the subpoena and send an electronic copy to counsel immediately. In very rare occasions, the Department of Justice will obtain a court warrant to conduct a raid on the offices of a company



or an association. In such a situation several FBI agents will show up at the associations offices, ask all the employees to go to one location and begin seizing documents, computer files, computers, etc. Employees will not be permitted to call counsel, use the telephone or use cell phones until the raid is completed. It is extremely unlikely that such a raid would occur at APA. The FBI needs a warrant issued by a court to authorize such a raid. A subpoena does not provide authority to obtain immediate access without first giving the association the right to contact counsel and obtain counsel's advice on how to proceed. Staff should be educated as to how to respond to an antitrust investigation.

#### VII. Minutes and Agendas

A detailed agenda should be prepared prior to all meetings of the association and the association's Board of Directors. Counsel should review the agenda to ensure that there are no antitrust sensitive issues scheduled for discussion. If counsel determines that a scheduled discussion item may be antitrust sensitive, counsel will advise the association of the best way to deal with the issue presented.

Accurate minutes should be kept of all association and association Board of Directors meetings. Minutes should be approved by counsel before adoption.

#### VIII. Rump Sessions

The APA will not permit rump sessions to be held in connection with association meetings.

Approved by the APA Board of Directors on \_\_\_\_\_.  
(date)



## **Exhibit A**

### **APA Whistleblower Policy**

It is the policy of APA to fully comply with all laws including federal and state antitrust laws. Compliance with the law means not only following the law but also creates an obligation on all APA employees to report to his or her supervisor or to APA Counsel, any activity of the association or association members that the employee has reason to believe may violate any law including the antitrust laws.

It is recognized that all employees are not legal experts. Employees are encouraged to seek guidance from supervisors or legal counsel whenever the employee has a legal compliance question.

In no instance will any employee be sanctioned or adversely affected from bringing any such matter to the attention of his or her supervisor, the association or the association's legal counsel even if it turns out that no violation of law or policies exist.



## **Exhibit B**

### **APA Antitrust Policy Statement (To Be Read Before All Association Meetings)**

It is the policy and intent of the American Polygraph Association (hereinafter APA), its Officers and Members to comply with all federal and state anti-trust laws, regulations and amendments thereof. APA has adopted a comprehensive Antitrust Compliance Program which is available on our website. APA recommends that all of you become familiar with the program.

The APA shall not, nor shall any of its Officers or Members, in any fashion whatsoever attempt to lessen competition or fix prices or to create a combination or monopoly in violation of federal or state laws.

Discussions of price fixing and/or price levels are strictly prohibited. There shall be no discussion as to the allowances for discounts, terms of sale, profit percentages and/or mark ups.

Discussions of a division, separation and/or limitation of territories, customers, and/or service providers and/or limitation of the nature of business carried on or products sold and/or services delivered are not permitted.

Boycotts in any form or nature are strictly prohibited. Discussion or engagement relating to boycotts, blacklisting, unfavorable reports about a particular individual, company or organization, including their financial situation is strictly prohibited.

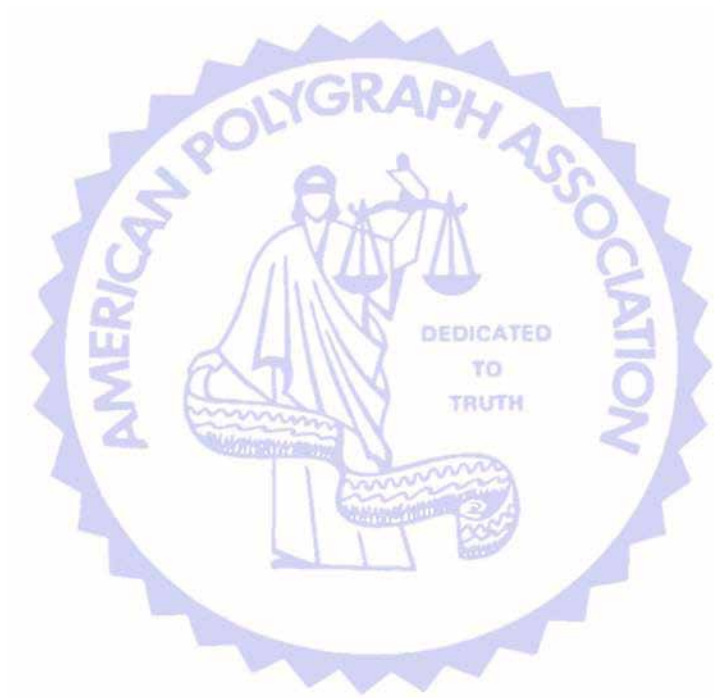
If any discussion or action in violation of anti-trust statutes occurs, you should object, have your objection noted in the minutes of any meeting and, if the discussion or practice continues, leave the room. Further, the prohibitions apply to discussions in an informal or social setting, not just regularly scheduled meetings. If you see any prohibited practices at any APA meeting or social event, it is your duty to raise your concerns to a leader of the APA and/or APA General Counsel.

As part of our Antitrust Compliance Program, we remind members before each meeting that we will not engage in any conduct that could be construed as price fixing, bid rigging,



customer allocations or group boycotts, or in any way might be considered an unreasonable restraint on trade.

If you have any questions regarding our Antitrust Compliance Policy, please contact APA's General Counsel. This is a very serious matter and your cooperation and adherence to these policies are expected.





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## By Bakhtiyar Aliev and Said R. Khamzin

There is no practical experience of polygraph use in law enforcement activities in the Republic of Azerbaijan yet, but there is some organizational, legal and procedural progress in this area.

In 1999, after attending Third International Conference for Polygraph Examiners in Sochi (Russia), and after recommendation of the Council of the CIS Ministers of the Interior, Azerbaijan specialists led by Bakhtiyar Aliyev, Senior Research Associate of the Azerbaijan National Academy of Sciences, began to establish the Department of Psychophysiological Examinations in the Ministry of Internal Affairs of the Republic of Azerbaijan (MIA). Draft of the instructions on polygraph use in the process of crime solving were prepared with the help from Belorussian colleagues. Before the start of practical work, on the insistence of the Office of Public Prosecutor of the Republic of Azerbaijan, these activities were

stopped.

Despite of certain difficulties of polygraph use in law enforcement activities in the Republic of Azerbaijan, a lot has been done in the development of polygraph. Thus, after participating in the Third International Conference for Polygraph Examiners in Sochi, a laboratory was set up at the Police Academy of the MIA of the Republic of Azerbaijan. After it was equipped with computers and Russian-manufactured polygraph instruments "Polarg", the laboratory staff started conducting experimental polygraph examinations. A topic of "Legal and Organizational Aspects of Polygraph Use in Fight Against Crime" was added to the list of coursework on criminalistics. In 3 years 46 cadets and students of the Academy defended their graduation thesis on this subject. In 2013 MIA purchased two polygraph instruments "Concordia" and it plans to train polygraph examiners.





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In 2000 Fizuli Mamedov, Associate Professor of the Criminalistics and Forensic Examinations Department of the Law Faculty of the Baku State University, defended his Ph.D. thesis on the use of polygraph in law enforcement activities and published a monograph in Azerbaijani language on problems of polygraph use. From 2008 the Department conducts experimental polygraph examinations using a Russian-manufactured polygraph “Polarg”.

Since 2010 a private company GRBS started conducting polygraph examinations for commercial purposes. Two of the company’s polygraph examiners were trained in Moscow. On March 30, 2016, for the first time in Azerbaijan, this company presented the use of polygraph in civilian sector

– banking, security management, staff management.

In 2012 the Scientific Center for Criminology Researches was established in the Philosophy and Law Institute of Azerbaijan National Academy of Sciences. As a part of this center, a room for psychophysiological examinations and polygraph examinations was organized.

There is a legislative basis for the use of polygraph in law enforcement activities in the Republic of Azerbaijan. Thus, among the norms of the new Code of Criminal Procedure of the Republic of Azerbaijan relating to such investigative activities as interrogation, search, verification of testimony on site and others, there is a direct reference permitting “use of other re-



ording tools” parallel to photo, audio, video and film shooting, so the results of polygraph examinations can be of evidentiary nature. In the framework of investigative activities, the situation is similar. It is stated that “certain issues can be managed by persons with special knowledge”. Based upon this statement, polygraph examiners can be involved in crime solving process.

In 2015 Azerbaijan polygraph examiner, employee of the Azerbaijan National Academy of Sciences, Associate Professor Bakhtiyar Abdurakhman Aliyev participated in the 50th Seminar of the American Polygraph Association in Chicago.

Following the seminar, Forensic Exam-

ination Center of the Ministry of Justice of the Republic of Azerbaijan purchased two Axciton polygraph instruments and there are plans to conduct polygraph examinations as a part of forensic psychological examination.

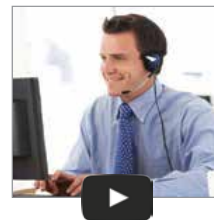
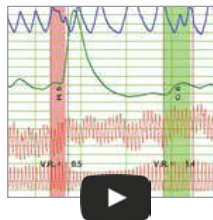
As of 2016, there are 9 polygraph examiners in Azerbaijan who underwent training in Russian and Ukrainian polygraph schools.

Azerbaijan polygraph professionals hope that in the near future with enough experience gained, they will discuss practical use of polygraph in fight against crime in the Republic of Azerbaijan on conferences in the USA.





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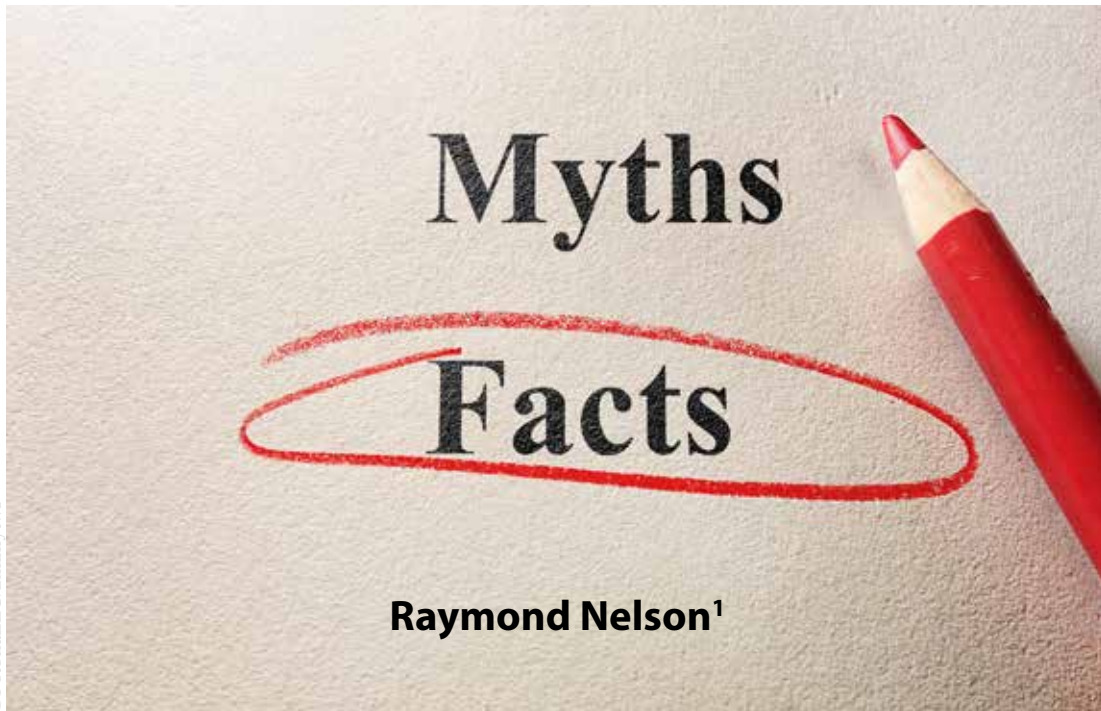


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# Practical Polygraph: Managing the Cardio Cuff Sensor During the Pretest Interview



Effective management of the cardio cuff sensor, including the physical placement of the sensor and communication with the examinee, can increase the effectiveness of the test by reducing the occurrence of potential

problems. Potential problems associated with the cardio sensor can include distraction of examinee attention away from the test stimuli, interpersonal drama, and suboptimal data quality. Cardio data quality, though

1. Raymond Nelson is a psychotherapist and polygraph examiner who has conducted several thousand polygraph examinations. He has expertise in working with perpetrators and victims of sexual crimes and other abuse and violence. Mr. Nelson has expertise in statistics and data analysis and is one of the developers of the OSS-3 scoring algorithm and the Empirical Scoring System. He is a researcher for Lafayette Instrument Company (LIC), a developer and manufacturer of polygraph and life-science technologies, and is also a past-President of the American Polygraph Association (APA), currently serving as an elected Director. Mr. Nelson teaches and lectures frequently throughout the United States and internationally, and has published numerous studies and papers on all aspects of the polygraph testing, including the psychological and physiological basis, test data analysis, faking/countermeasures, interviewing and question formation and test target selection. Mr. Nelson has been involved in policy development at the local, state, national and international levels in both polygraph and psychology, and has testified as an expert witness in court cases in municipal, district, appellate, superior and supreme courts. Mr. Nelson is also the academic director of the International Polygraph Training Center (IPTC). There are no proprietary or commercial interests and no conflicts of interest associated with the content of this publication. The views and opinions expressed in this publication are those of the author and not necessarily those of the APA, LIC or IPTC. Mr. Nelson can be reached at [raymond.nelson@gmail.com](mailto:raymond.nelson@gmail.com).



beyond the scope of this article, may also be affected by a combination of other factors, including cardio cuff placement, the physical position of the examinee, and individual physiology.

Effective communication with the examinee during the early stages of the pretest interview can help to avoid problems, improve data quality, and increase the effectiveness of polygraph test results. The pretest interview can be conducted as a structured interview that is executed verbatim, without deviation, according to a carefully prepared or memorized script, or a semi-structured interview in which the examiner and examinee provide and exchange a structured list of information points in a dialogue that emerges in the natural language and communication styles of the two individuals.

Structured interviews have the advantage of consistency, though they also give rise to questions about the need for expensive professional expertise because the exchange of structured verbatim information does not require expertise, and can be accomplished with even greater consistency and less expense using a paper-and-pencil task, computerized kiosk task, or recording. Semi-structured interviews attempt to provide an outline or information structure to an interpersonal task, while fostering increased engagement and rapport between

polygraph interviewer and polygraph examinee. The main requirement of a semi-structured interview is to clearly express and exchange all the information points defined in the semi-structured interview protocol.

The onset or initial stage of the polygraph pretest interview is simply to greet the examinee, introduce and identify the names and pronouns to be used during the examination, and, of course, to positively identify the examinee and the role of the polygraph examiner. Following that, the examiner should proceed to briefly summarize and explain the polygraph process. This is to ensure that the examinee is properly informed about the ensuing polygraph process, so that the examiner can obtain the examinee's informed consent to proceed with the polygraph examination. Informed consent requires that the examinee has been provided with correct information about what will be done during the examination – including the pretest interview, test data recording, and analysis phases – and who will receive information from the examination. A summary of the polygraph process will include a brief explanation of the polygraph sensors that will be attached to the examinee during data acquisition. Following is a list of information points that can be explained to the examinee.

- Polygraph examiners do not check or measure blood pressure during



testing

- Normal blood pressure is 120/80mmHg (read: “120 over 80 millimeters of mercury”)
- Cuff pressure during polygraph testing is approximately 65mmHg, and is adjusted for each examinee to optimize data quality and examinee comfort
- 65mmHg of pressure is less than 120/80, meaning that is not mechanically possible to completely occlude or completely cut-off circulation during testing, though circulation may be reduced during testing
- Some persons report the cardio cuff sensor is uncomfortable
- Some persons find their hand will turn red during testing
- Some persons find their hand will become tingly during testing
- These effects are not harmful
- The color and sensations in the hand will quickly return to normal after testing is completed

Some examinees may be concerned about their blood pressure or they may be concerned that their blood pressure may affect the test result. Informing the examinee that the polygraph test does not involve actual measurement of blood pressure serves to help assure the examinee that this type of medical concern will not affect the test. Informing the ex-

aminee that normal blood pressure is 120/80mmHg can help to elicit information from examinees who may report that they have high blood pressure or low blood pressure. Although this does not affect the examination, it can help the examiner to more easily anticipate the kinds of cuff pressure and sensitivity adjustments that will be necessary to optimize the examinee’s recorded data. More importantly, the examinee should be reassured that the cuff is not completely occlusive and does not cut off circulation during testing.

Discomfort from the blood-pressure cuff is a known concern. Although most examinees will deny attempting to access information about the polygraph prior to the examination date, many will, in fact, have read information on the Internet or will have spoken to others about the test. Examinees who have sought out information on the polygraph may have encountered dramatized portrayals of this, leading to elevated levels of apprehension about the test.

It will not suffice for polygraph professionals to attempt to assert that the cardio cuff is not uncomfortable. Attempts to do so might damage rapport and professional credibility. Here, polygraph examiners will be wise to take their lessons from dentists and nurses – professionals who routinely work with persons who make experience discomfort. Experienced profes-



sionals, when asked about the possibility of discomfort, know that any excuses or dishonesty about the experience of discomfort will result only in a loss of professional credibility and trust. They will respond in a neutral and factual manner, without either minimization or exaggeration. They will not make repeated inquiries into the experience of discomfort, knowing that attention is best devoted to the task at hand, and that repeated inquiry about discomfort will only result in increased difficulty. Instead, discussion of these matters in the early stages of the pretest interview serves to permit the spontaneous expression of discomfort if necessary.

The optimal approach will be for polygraph professionals to remain factual, with a neutral demeanor that neither exaggerates nor minimizes the potential for discomfort from the cardio cuff sensor. Some examiners may choose to wait for the examinee to inquire about discomfort before engaging this discussion.

Another approach will be to engage the discussion of discomfort without waiting for inquiry and without waiting for the examinee to react with surprise. The advantage of this will be to provide information to those examinees who may have wondered but did not find a way to ask. When discussing the issue of discomfort from the cardio cuff sensor, the examiner will provide factual and neutral information about

the potential for the hand to turn red or reddish during testing, in addition to the potential for a tingling sensation because of reduced distal circulation during testing. Discussion at this early stage of the pretest interview can help to prevent distraction during data acquisition and recording, and may also serve to reduce the amount of real or feigned emotional and behavioral reactivity that examinee's may engage in when they notice these things during testing. Discussion of these potential sensations during the pretest interview also provides the examiner an opportunity to avoid difficulties by reassuring the examinee that the polygraph testing process is not harmful, despite what they have read or heard previously.

Of course, some examinees intend on being disruptive to the test as a strategy to either conceal the fact that they are being deceptive or in attempt to distort the polygraph test data and result. In these cases, there may be nothing that will adequately reduce the drama and disruption an examinee introduces to the testing context. Learning to manage the cardio cuff sensor during the pretest interview can give the professional examiner an opportunity to observe whether the examinee is capable of and willing to cooperate during testing.

For innocent and truthful individuals who desire to cooperate and produce favorable testing outcomes, the provi-



sion of factual and correct information through professionally neutral and accountable discussion can help to construct an effective rapport between examiner and examinee, leading to the calm, relaxed, awake and alert psychological states that are known to be associated with more effective attention, concentration, cooperation, memory, comprehension and communication. If properly discussed at the early stages of the pretest interview, in the context of obtaining the examinee's informed consent for testing, it should not be necessary to engage in any later inquiry or discussion about discom-

fort from the cardio cuff sensor; doing so will encourage reactivity to perceptions that the cuff is somehow harmful. A systematic and well-organized and well-prepared understanding of the information contained in the brief summary will enable the examiner to devote more attention to the task of understanding the examinee and building conversational rapport that can support the development of more useful information during the remainder of the pretest interview.

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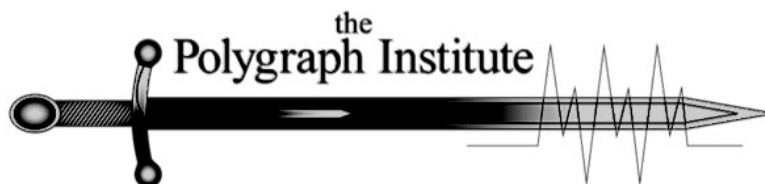
- ◆ Feb & April 2017
- ◆ Call to host a course

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Our objective here at APS is to provide our students with the best education and training in the best practices of the polygraph profession. This comprehensive instruction consists of the most scientifically reliable, valid and up-to-date principles and techniques.

Our training will prepare students to perform ethical, valid, and reliable single issue, event-specific issue and multiple-issue exams proficiently. Our courses are designed to provide the highest quality, tailor-made instruction in both the classroom and laboratory settings. Upon graduation, students will be ready to effectively conduct screening and diagnostic polygraph examination techniques.

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# Detection Deception: Ancient Lie Detection Trickery

Donald Krapohl<sup>1</sup> and Donnie Dutton<sup>2</sup>



## Introduction

Every polygraph school includes a block of instruction on the history of “lie detection,” and most of that instruction is a variation of histories documented by just two sources: Paul Trovillo’s 1939 doctoral dissertation (published as Trovillo, 1972a and b) and the lesson plan from the first polygraph school, the Keeler Polygraph Institute.

One of the common anecdotes included in the history block is a story that takes place in ancient India, and involves a Hindu leader, a thief, lamp-black, and a sacred ass. Polygraph pioneer Leonarde Keeler published an abbreviated version of the story in 1938. A fuller telling appears in the polygraph textbook by Clarence D. Lee (1953), who worked with Leonarde Keeler in the earliest days of polygraph at the Berkeley Police Depart-

1. Past APA President, former APA Editor, coauthor of the polygraph textbook *Fundamentals of Polygraph Practice*, and now Director of Educational Services Division, Capital Center for Credibility Assessment.
2. Past APA President, former APA Director, now Vice President of Capital Center for Credibility Assessment ([www.C3Acorp.com](http://www.C3Acorp.com)), and regular contributor to APA publications.

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ment in the 1920s. Here is how Lee (1953) recounts the tale in the history chapter of his polygraph textbook:

...Another test of the time, credited to a crafty Hindu prince, while based on the superstitiousness of his subjects, showed sound psychological reasoning on the part of its originator, and was successful until the ruse was discovered. Whenever a crime was committed within his jurisdiction, the prince had all the suspects rounded up and brought into his court in the palace, where they were instructed to stand against the wall with their hands behind them. He then informed them that in an adjoining darkened chamber was a sacred ass which would bray when his tail was pulled by the guilty person, and that they were to go into the room, one at a time, pull the ass' tail and then return to their original positions against the wall. When this had been done and the ass had not brayed, all suspects were ordered to extend their hands in front of them for examination, whereupon it was found that only one of the group had come out with clean hands – the guilty one. The prince had dusted the ass' tail with black powder, and

those with clear conscience had pulled the tail and soiled their hands. (p. 4).

This story of the sacred ass should sound familiar to polygraph examiners trained in the past 60 years. It has been passed down by generations of polygraph instructors. The problem with this tale is that neither its origin nor its authenticity have ever been substantiated. Lee never cites the source of the Hindu prince story quoted above. The historical accounts in Trovillo's 1939 dissertation were scrupulously cited, but the story of the Hindu prince does not appear anywhere in Trovillo's paper. Nor is there any mention of it in the writings of lie detection pioneers Drs. John Larson or William Marston. An effortful search through hundreds of historical writings from India also did not uncover the story of the sacred ass reported in Lee. (See Krapohl & Shaw, 2015). When the sacred ass story is mentioned in the context of lie detection, all roads lead back to Keeler and Lee, but no further.



This does not mean the story of the sacred ass is untrue, of course. It only means no one seems to know where it originated<sup>3</sup>. Though it makes for an important teaching point, should it be taught in polygraph schools as a historical tale? If the absence of an authenticated source gives one pause about teaching it, as it does to the present authors, are there any other stories that could be used in its stead that convey the same message? That is, are there authentic historical accounts that demonstrate that deception was uncovered by manipulating the beliefs of suspects and watching for behaviors that set the guilty apart from other suspects? As it happens, there are several age-old narratives along that line.

In this article we have chosen a few of them to tell. Two are set in China, a third in the far north of North America, and the fourth from India. These stories have several things in common with the sacred ass tale; a clever leader is called upon to solve a crime, there are several superstitious suspects,

the leader manipulates the suspects' beliefs, and the guilty man is revealed by a behavior that distinguishes him from the innocent suspects. We hope you enjoy them.

### Tale 1. Smearing the Bell<sup>4</sup>



This story emerges from China more than a thousand years ago, and was originally written as a historical record of an actual event (Shen Gua, cited by Ting, 1985)<sup>5</sup>. In the story, Chen Shugu was a magistrate in Fujian province, a coastal area in southeast mainland China. A man proffers a claim to Chen Shugu that his property has been stolen, though the identity of the thief is unknown. He seeks judge Chen's

3. The first author has a standing offer of \$100 to the first person who can find an authenticated source for the story prior to it appearing in Leonarde Keeler's writings.
4. We are grateful to Professor Don Grubin for bringing this story to our attention.
5. The story was also written for general readership by Amy Friedman and Meredith Johnson, and published online. It can be accessed at <http://www.uexpress.com/tell-me-a-story/2009/8/16/the-judgment-bell-a-chinese-tale>.

Image of bell used with permission. Original located at [https://commons.wikimedia.org/wiki/File:Wei\\_Bin\\_Temple\\_Bell.jpg](https://commons.wikimedia.org/wiki/File:Wei_Bin_Temple_Bell.jpg)



assistance in identifying the thief and recovering his property. Chen has all possible suspects rounded up and brought to him. Once assembled Chen tells the suspects that he has a temple bell that is endowed with magical powers. This magic bell, he tells them, will ring when touched by the thief, but will do nothing when an innocent person touches it. The bell is located behind a curtain, and he commands each suspect in turn to reach behind the curtain and lay a hand against the side of the bell. What the suspects do not know, however, is that Chen has directed his constables to paint the bell with ink such that it will stain the hands of all who touch it. Chen then examines the hands of the suspects after they placed their hands behind the curtain, and finds only one who shows no ink. The guilty man was afraid the bell will ring when he touched it, and so he did not place his hands on it as instructed. All others, having nothing to fear, show the ink stains on their hands.

## **Tale 2. The Thief and the Elephant**

This story comes to us by way of the book *Chinese Fables and Folk Stories* (Davis & Chow, 1908). Because the copyright for the book has expired, we bring you the tale as it originally appears.



Six hundred years ago the people of Southern China trained elephants and taught them to do many useful things. They worked for farmers and woodcutters, and helped make the roads twice a year; for an elephant could do many times more work than any other animal. So wise were the elephants that the people grew superstitious about them, believing they could see even into the heart of man.

A judge named Ko-Kia-Yong had an elephant that was trained to do this wonderful thing, so it was said. Three cases which were brought before him, were decided by a wise old elephant which he owned. And this is the way one of the decisions was made:

A man came before the judge and said that some robbers had been in his house during the night and had taken his gold and jewels—all that he had; and



he asked the judge to find and punish the thieves.

In three months, five robbers had been found. When they were brought to the judge, they bowed before him and each one said, "I have never stolen anything."

The man and woman who had been robbed were called. And the woman said, "That man with the long gray hair is the one who robbed us."

The judge asked, "Are you sure it is he, and how do you know?"

She answered, "Yes, I remember. He took the bracelet from my arm and I looked into his face."

"Did the other four rob you also?" asked the judge.

The woman answered, "I do not know."

But the judge said, "The man who you say is a robber, seems not like one to me. His face is kind and gentle. I cannot decide according to your testimony. I know of but one way to find out, and we shall soon know the truth in this matter. My elephant shall be brought in to examine the men: He can read the mind and heart of man; and those who are not guilty

need have no fear, for he will surely know the one who has done this deed."

Four of the men looked glad.

They were stripped and stood naked—all but the cloth—before the judge and the law of the nation, and the elephant was brought in.

Then the judge said to the elephant, "Examine these men and tell us which is the robber." The elephant touched with his trunk each of the five accused men, from his head to his feet.

And the white-haired man and the three others stood still and laughed at the elephant with happy faces; for they knew in their hearts they were not guilty and they thought the elephant knew. But the fifth man shivered with fear and his face changed to many colors. While the elephant was examining him, the judge said, "Do your duty," and rapped loudly. The elephant took the guilty man and threw him down on the floor, dead.

Then the judge said to the four guiltless men, "You may go." And to the woman he said, "Be careful whom you accuse." Then he said to the elephant, "Food and water are



waiting for you. I hope you may live a long time, and help me to judge wisely."

After this many wise men who were not superstitious went to the judge and said: "We know that your elephant can not read the heart and mind of man. What kind of food do you give him and what do you teach him? Man himself lives only from sixty to one hundred years and he knows little. How could an elephant read the heart of man, a thing which man, himself, cannot do? Did the spirit of a dead man grow wise and enter that elephant? We pray that you explain."

And Ko-Kio-Yong, the wise judge, laughed and said, "My elephant eats and drinks as other elephants do. I think he surely does not know a robber from an honest man, but this is a belief among our people. The honest man believes it and has no fear, because he has done no wrong. The thief believes it, and is filled with terror. Trial before the elephant is only confession through fear."

### **Tale 3. The Master of Mystery**

The great American author Jack London was a prolific writer. Some of his best work was based on his experiences during the Klondike gold

rush of the late 1890s, where he spent a year mining in the frozen North country in a vain search for riches. One of London's more intriguing stories is *The Master of Mystery*, from his book *Children of the Frost* (London, 1902). Like Tales 1 and 2, it shows how thievery is resolved through a shrewd understanding of people. Again, the copyright for *Children of the Frost* has expired, so we had the opportunity to present London's lie detection story here in his own words. The story is somewhat reminiscent of the sacred ass story, but with a couple of twists. Ting (1985), who cataloged Tale 1 earlier in this article, argues London took a real Thlinget event to create this story. Because we could find at least one of the lead characters listed in the Alaska state archives, we are inclined to agree with Ting that London borrowed the story from local Inuits he may have encountered while pursuing gold in the North country.

Before we present the tale, a little set up is necessary to introduce the characters and the backstory. It takes place in a Thlinget village in the great north woods in the area of Alaska and Northwestern Canada. Hooniah is a Thlinget woman whose prized blankets were stolen. She is upset with her son, Di Ya, because



he distracted her with some of his mischief, and as she and her husband, Bawn, were disciplining the boy the blankets disappeared from where they were hanging outside. Normally, their shaman, Scundoo, would be asked to divine who had stolen the blankets, but Scundoo had recently made a bad call about the weather, and was presently in a state of disgrace. Instead, they called upon a very powerful shaman, Klok-No-Ton, who came to the village to ferret out the thief. One of the villagers, Sime, was vocally disdainful of all magic and of all shamans. Klok-No-Ton does a magical dance, at the end of which, and with great fanfare, he implicates the villager La-lah. However, La-lah, as everyone in the village knows, had been away seal hunting during the theft. He could not be the blanket thief. Klok-No-Ton had struck out, so he left the village. This gave Sime his I-told-you-so moment. Still, having no other choice the villagers turn back to shaman Scundoo for help. Scundoo orders everyone in the village to gather at Hooniah's house that night. Our story picks up here. Pay particular attention near the end of the story to the Thlinget notion of posttest interrogation of the guilty suspect that secures the confession.

When the last silver moonlight had vanished beyond the world, Scundoo came among the people huddled about the house of Hooniah....

"Is there wood gathered for a fire, so that all may see when the work be done?" he demanded.

"Yea," Bawn answered. "There be wood in plenty."

"Then let all listen, for my words be few. With me have I brought Jelchs, the Raven, diviner of mystery and seer of things. Him, in his blackness, shall I place under the big black pot of Hooniah, in the blackest corner of her house. The slush-lamp shall cease to burn, and all remain in outer darkness. It is very simple. One by one shall ye go into the house, lay hand upon the pot for the space of one long intake of the breath, and withdraw again. Doubtless Jelchs will make outcry when the hand of the evil-doer is nigh him. Or who knows but otherwise he may manifest his wisdom. Are ye ready?"

"We be ready," came the multi-voiced response.

"Then will I call the name aloud, each in his turn and hers, till all are called."

Thereat La-lah was first chosen,



and he passed in at once. Every ear strained, and through the silence they could hear his footsteps creaking across the rickety floor. But that was all. "Jelchs made no outcry, gave no sign. Bawn was next chosen, for it well might be that a man should steal his own blankets with intent to cast shame upon his neighbors. Hooniah followed, and other women and children, but without result.

demanded fiercely.

Sime chuckled. "I laugh at it all, for it is a great foolishness. Yet will I go in, not in belief in wonders, but in token that I am unafraid."

And he passed in boldly, and came out still mocking.

"Someday shalt thou die with great suddenness," La-lah whispered, righteously indignant.

"I doubt not," the scoffer answered airily. "Few men of us die in our beds, what of the shamans and the deep sea."

When half the villagers had safely undergone the ordeal, the excitement, because of its repression, was painfully intense. When two-thirds had gone through, a young woman, close on her first child-bed, broke down and in nervous shrieks and laughter gave form to her terror.

Finally the time came for the last of all to go in, and nothing had happened. And Di Ya was the last of all. It must surely be he. Hooniah let out a lament to the stars, while the rest drew back from the luckless lad. He was half-dead from fright, and his legs gave under him so that he staggered on the threshold and nearly fell.



Photo of Scundoo (center) ca 1907. Courtesy of Alaska's Digital Archives, the William R. Norton Collection.

"Sime!" Scundoo called out.

"Sime!" he repeated.

But Sime did not stir.

"Art thou afraid of the dark?" La-lah, his own integrity being proved,

Scundoo shoved him aside and closed the door. A long time went by, during which could be heard only the boy's weeping. Then, very slowly, came the creak of his steps to the far corner, a pause, and the creaking of his return. The door opened and he came forth. Nothing had happened, and he was the last.

"Let the fire be lighted," Scundoo commanded.

The bright flames rushed upward, revealing faces yet marked with vanishing fear, but also clouded with doubt.

"Surely the thing has failed," Hooniah whispered hoarsely.

"Yea," Bawn answered complacently. "Scundoo groweth old, and we stand in need of a new shaman."

"Where now is the wisdom of Jelchs ?  
" Sime snickered in La-lah's ear.

La-lah brushed his brow in a puzzled manner and said nothing.

Sime threw his chest out arrogantly and strutted up to the little shaman. "Hoh! Hoh! As I said, nothing has come of it! "

"So it would seem, so it would seem,"

Scundoo answered meekly. "And it would seem strange to those unskilled in the affairs of mystery."

"As thou?" Sime queried audaciously.

"Mayhap even as I." Scundoo spoke quite softly, his eyelids drooping, slowly drooping, down, down, till his eyes were all but hidden. "So I am minded of another test. Let every man, woman, and child, now and at once, hold their hands well up above their heads!"

So unexpected was the order, and so imperatively was it given, that it was obeyed without question. Every hand was in the air.

"Let each look on the other's hands, and let all look," Scundoo commanded, "so that -"

But a noise of laughter, which was more of wrath, drowned his voice. All eyes had come to rest upon Sime. Every hand but his was black with soot, and his was guiltless of the smirch of Hooniah's pot.

A stone hurtled through the air and struck him on the cheek.

"It is a lie!" he yelled. "A lie! I know naught of Hooniah's blankets!"



A second stone gashed his brow, a third whistled past his head, the great blood-cry went up, and everywhere were people groping on the ground for missiles. He staggered and half sank down.

"It was a joke! Only a joke!" he shrieked. "I but took them for a joke!"

"Where hast thou hidden them?" Scundoo's shrill sharp voice cut through the tumult like a knife.

"In the large skin-bale in my house, the one slung by the ridge-pole," came the answer. "But it was a joke, I say, only-"

Scundoo nodded his head, and the air went thick with flying stones. Sime's wife was crying silently, her head upon her knees; but his little boy, with shrieks and laughter, was flinging stones with the rest.

Hooniah came waddling back with the precious blankets. Scundoo stopped her.

"We be poor people and have little," she whimpered. "So be not hard upon us, O Scundoo."

The people ceased from the quivering stonepile they had builded, and looked on.

"Nay, it was never my way, good Hooniah," Scundoo made answer, reaching for the blankets.

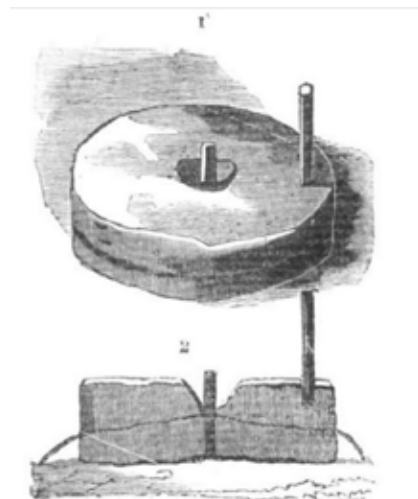
"In token that I am not hard, these only shall I take."

"Am I not wise, my children?" he demanded.

And he went away into the darkness, the blankets around him, and Jelchs nodding sleepily under his arm.

#### **Tale 4. The Thief Catcher**

Our final story hails from India. In his expansive text on Muslim customs in India in the early part of the 19<sup>th</sup> century, Shurreef (1832) describes a practice in which a holy man sets up something like the sacred ass in a tent, but with an odiferous substance between heavy grinding stones in a room filled with religious relics. Here is Shurreef's account.



When a person's property is stolen he sends for a thief-catcher; and should he suspect any particular individual, he assembles together a few of his neighbors along with that person. Then the thief-catcher having besmeared the floor of an apartment with yellow or red ochre or cow-dung, and sketched thereon a hideous figure of prodigious size, selecting any one from among those employed in the casting out of devils, giving it four frightful faces, he places a handmill in the centre of it, having previously rubbed some assafoetida<sup>6</sup> about the centre betwixt the two stones. The upper stone of the mill is placed obliquely, resting on the pin in the centre of the lower one, or some cloth or flax is wound round the pin, about the distance of a finger or two from the top, and on this the upper stone rests, so that it appears as if suspended in the air and not resting on anything. He places near the mill a few fruits, & burns frankincense, and places thereon a lighted lamp, made by burning oil in a human skull-cap. He then desires the men and women to go one by one into the room, touch the centre of the mill, and return to him; adding, that should none among them be the thief, they need not hesitate in so

doing; observing, "Behold, by the power of my science the stone is suspended. Whoever is the thief, his hand will be caught between the stones, and it will be no easy matter for him to extricate it. Nay, the chances are, the upper stone will fall and crush his hand to atoms." While they do this, the thief-catcher sits in a place by himself ; and as each individual comes to him, he smells his hand, to ascertain whether it has the odour of assafoetida, and then sends him away to a separate apartment, that they may have no communication with each other. He who is the guilty person, through fear of being detected, will not on any account touch it; consequently his hand will not smell of assafoetida, and he must be set down for the thief. The operator then takes him aside, and tells him privately, "swear that I will not expose you, provided you deliver up the article to me, and your honour will remain wholly unimpeached." In consequence of which, should it be a reputable man, he will immediately confess it and deliver up the stolen goods... (p 390-391).

Oblique and cross-section of a stone handmill. From: *The Dublin Penny Journal* (1836, Mar 12)

6. A substance used in Indian cooking which, in its raw form, has a very strong and pungent aroma, so much so that it will contaminate other spices located near it.



## Conclusion

Guilty people often behave differently from innocent people, and this is probably true across cultures and history. A clever person can use this fact to discriminate who the guilty person is, which is the core lesson of the sacred ass story. Ancient folk tales from several cultures capture the same idea, and though we tell four such tales here, there are certainly others (e.g., the story of biblical King Solomon determining who was the mother of a disputed child.) We suspect the use of manipulation of peoples' beliefs to elicit a revealing behavior and so to solve a problem is probably as old as human culture. We hope you enjoyed these stories, and that they may be incorporated into the profession's body of history.

## References

Davis, M.H., & Chow, L. (1908). The thief and the elephant. In *Chinese Fables and Folk Stories*. American Book Company: New York.

Keeler, L. (1938). The detection of deception. In *Outline of Scientific Criminal Investigation*. Edward Bros: Ann Arbor, MI. Keeler's chapter was reprinted by the American Polygraph Association in 1976 in *Polygraph*, 5(4).

Krapohl, D.J., and Shaw, P.K. (2015, Jan-

Feb). In search of the holy tail. *APA Magazine*, 48(1), 43-46.

Lee, C.D. (1953). Historical background. In *The Instrumental Detection of Deception: The Lie Test*. Charles C. Thomas: Springfield, IL.

London, J. (1902). The master of mystery. In *Children of the Frost*. The Regents Press: New York.

Shurreef, J. (1832). *Qanoon-e-Islam, or the Customs of the Moosulmans of India*. Translated by G.A. Herklots. Parbury, Allen, and Co.: London.

Ting, N. (1985). A comparative study of three Chinese and North-American Indian folktale types. *Asian Folklore Studies*, 44, 39-50

Trovillo, P. (1972a). A history of lie detection (Part 1). *Polygraph*, 1(2), 46-74.

Trovillo, P. (1972b). A history of lie detection (Part 2). *Polygraph*, 1(3), 151-160.



# Advancing Diversity In Law Enforcement

Stanley M. Slowik\*



On October 5, 2016 the Civil Rights Division of the U.S. Department of Justice and the Equal Employment Opportunity Commission (EEOC) simultaneously released a report titled *Advancing Diversity In Law Enforcement* (Advancing Diversity, 2016). The report is focused on what it calls barriers to diversity in police recruitment, hiring and retention and suggests “promising practices” that emphasize inclusion of different racial and gen-

der perspectives to change police culture and leadership.

At the heart of *Advancing Diversity* is the mandate that racial and gender diversity should be the driving force behind police recruitment and selection systems and, by implication, that the traditional police mission of public safety through the enforcement of law must be changed. Competencies such as the ability to read, write and abstain

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from criminal activity as an adult are redefined as obstacles and barriers to opportunity. In short, the report's "promising practices" appear to focus heavily on making evaluations of criminal activity more expensive and difficult – a rehash of the Ban-the-Box movement (Slowik, S., 2015; Slowik, S., 2016) – while encouraging the lowering of educational requirements. The report does appear to acknowledge that there are numerous jobs that require federal, state and local licenses and certification which in turn, by law, cannot be issued to individuals with adult histories of felonious, criminal activity. Likewise, the fifty state agencies that certify police rarely make exceptions with regard to histories of criminal activity and none of these exceptions involve race or gender. Nevertheless, *Advancing*, based upon the statistical racial and gender disparities that result from evaluations of criminal activity, labels the practice a "barrier" and encourages "promising practices", most of which are not new and have long been used by most law enforcement agencies, e.g. considering periods of accountability or the relevance of the crime. It is simply disingenuous to suggest, as the report does, that hiring standards don't differentiate between experimental, adolescent and current drug use or that physical agility tests are not validated to work related tasks.

The notion that race and gender, even when packaged as diversity and in-

clusion, supersedes all other selection criteria echoes the EEOC's recent failed attempts to use statistical disparities in hiring rates as prima face proof of illegal racist or sexist practices. As discussed in detail previously (Slowik, S., 2016), no one disputes that male police applicants will have recent, work-related histories of significant criminal activity far exceeding those of female applicants. Histories of serious adult criminal conduct traditionally have been disqualifiers for positions of trust in law enforcement. Since it is an essential function that police officers be credible witnesses in court, records of criminal activity have long been used by defense attorneys to discredit police witnesses.

Contrary to *Advancing Diversity's* assertion that adult criminal histories are primarily the result of racist and sexist police, prosecutors, judges, juries and, most importantly, false accusations by same race and gender victims, criminal histories are almost exclusively based on the individual's actual involvement in crime.

While there are no perfect selection tools or, in the aggregate, selection systems, the most valid and reliable methods are based on the applicant's recent, work related past activities. In the case of a criminal record, however, these activities are almost always minimized due to plea and charge bargaining, diversion, deferment, expungements, pardons, sealed records and,



depending upon the felony crime being considered, actually getting caught.

The fact that men engage in criminal activities more often than women more than adequately explains why they are convicted more often women and why there are far more male correctional institutions -and inmates - than female correctional facilities - and inmates (Bureau of Justice, 2016). Neuroscience has concluded that this enormous gender disparity is due to a physiological difference – testosterone – which in turn appears to encourage greater risk taking which can, in turn, explain the different tendencies to engage in criminal activities between the genders. Why different racial groups of males engage in criminal activities at different rates and therefore have significantly different statistical disparities has never been empirically explained though theories of socio-economic differences, “father-less” families, lead poisoning and gang participation, abound.

One theory currently gaining traction is that because different racial groups have statistically different educational proficiencies when employers set standards for education, it again is a form of de facto racial discrimination. Most colleges today devote more and more of their resources to remedial education programs since high school graduates today cannot not function at the level necessary to participate in

college courses (Henniger, D., 2016). *Advancing Diversity* frames educational standards as racial barriers to opportunity without considering linking the requirements to basic police functions such as knowledge of the law and the ability to learn how to operate increasingly complicated equipment. While it appears that the military has demonstrated the ability to teach combat procedures to high school graduates, the non-confrontational, communication techniques used in community policing procedures appear to benefit from higher levels of education. As early as 1967, the President’s Commission on Law Enforcement and Administration (COLEA) and again in 1988 the National Advisory Commission on Criminal Justice Standards and Goals began calling for national education standards that included college as minimums (Townes, C., 2015). Studies indicate that police officers with only a high school education account for 75% of all disciplinary actions while those who have graduated from college are only involved in 11% of similar actions (Aamodt, M., 2004). Sadly, some Departments have responded to charges of racism in educational standards by lowering their minimal requirements and simplifying or eliminating entrance examinations where college level reading and comprehension are required. Presumably, Police Academies will now follow the path of the colleges and devote more resources to remedial education. Ironically, the movement to revert to the same



educational standard (high school or GED) that was used in the 1940's after WWII seems to contradict the current theory that a college degree is a necessity for better employment opportunities and that simply making college available to all without cost will remedy the statistical disparities. This theory, of course, assumes that colleges have admissions standards essentially for the same reason that many police departments have college education standards: to discriminate on the bases of race and gender rather than any work related ability to perform.

The Office of Personnel Management (OPM), responsible for establishing many of the employment practices for federal employers, recently joined a number of state and local governments to "Ban-the-Box", i.e. postpone requests for information about criminal activities, including prior felony convictions, until late in the selection process (Slowik, S., 2016). Presumably, requests for information about educational achievement will soon follow unless the educational standards have been lowered sufficiently. Proponents of these "promising prac-



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tices” maintain that when employers are forced to delay evaluations of things like criminal activities, they will become so enamored of the applicant that they will just ignore the purpose of evaluating past criminal activity along with the numerous federal and state laws preventing felons from careers in law enforcement. The two recent (and only) research studies show that “Ban-the-Box” has exactly the opposite of its intended effect: racial minorities actually have significantly fewer employment opportunities under these programs than when employers are allowed to obtain and evaluate criminal histories early in the selection process (Doleac, J., Hanse, B., 2016; Agan, A., Starr, S., 2016). It is speculated that when employers are denied information about criminal activity, they attempt to make rational decisions based upon criminal profiling where, statistically, men engage in crime more often than women and, likewise, there are significant statistical differences within groups of males based upon race.

Law Enforcement is not the only profession being ordered to treat criminal activity evaluations as a racist and/or sexist practice. On May 9, 2016, the U.S. Department of Education created *Beyond The Box*, a guide which attempts to prohibit colleges and other educational institutions from evaluating past criminal activity as part of a school admissions program. This new directive also attempts to reverse the

effects of the Common Application which was created in 2006 and is currently used by nearly 700 colleges and universities as the standard admissions application. The Common Application solicits information about past criminal activity because of concerns for student safety and the reality that some degrees involve professions that prohibit the inclusion of convicted felons and might lead to false expectations of employment. The new *Beyond The Box* specifically limits evaluation of past criminal activity to “educational goals” and excludes any mention of student safety or unrealistic career opportunities. On April 4, 2016, the U.S. Department of Housing and Urban Development (HUD) issued new guidelines (U.S. Department of Housing, 2016) for landlords providing housing to tenants receiving government rent assistance prohibiting evaluations of past criminal activities. Both of these federal agencies have concluded that evaluations of criminal activities are an intrinsically racist practice and reject the notion that schools and landlords have a priority responsibility to provide safe environments for their students and tenants. Not surprisingly, these same government agencies do not provide any indemnification to those who comply with these directives and whose students and tenants are subsequently harmed by some student or tenant who was not adequately screened. Perhaps the most unusual application of mandated diversity is the Security and



Exchange Commission's (SEC) 2010 directive that business entities under its supervision must now contain a "diversity statement" in their annual proxy disclosures (Proxy Disclosure Enhancement, Final Rule, 2010). However, when some of the most respected corporations in the United States chose to define diversity in management and financial terms (operational experience, interest in the organization, etc.) rather than by race and gender, the SEC suggested that it will now propose a new rule that its proponents say will allow government to allocate Board participation by groups it designates as protected (Wall Street Journal, 2016). Berkshire-Hathaway, Warren Buffet's holding company, published a proxy disclosure that states "Berkshire does not have a policy regarding the consideration of diversity, however defined. Instead, as previously discussed, The Governance Committee looks for individuals who have very high integrity, business savvy, an owner-oriented attitude and a deep genuine interest in the Company". The Ford Motor Company defines diversity as a range of "experience in business, government, education and technology, and in areas that are relevant to the Company's global activities". The "problem", of course, is that neither diversity statement mentions race or gender.

It should be noted that all these remedies to correct statistical racial and gender disparities in education and

criminal evaluations are exclusively based upon assumptions of racial and gender discrimination rather than individual performance or actions. Further, these remedies – the OPM's Ban-The-Box directive, Departments of Education and HUD mandates and the SEC redefinition of diversity, are all maneuvers that bypass any form legislative process.

The concept of diversity, in the most general sense, has great appeal when it applies to philosophical considerations. Unfortunately, there is no basis for assuming philosophies are unique for and limited to race and gender as extreme differences of thought can be found within each category. Diversity as defined by the federal mandates discussed in this article is intrinsically divisive since each job applicant must first be identified by some stereotypical characteristic. While some of these characteristics can be linked to federal law and science (race and gender) others cannot (sexual orientation and gender identity). Traditionally, employers have been allowed to use their own criteria for recruiting and selecting new employees on the basis that they know their organizations and professions and are therefore best suited for determining performance related qualifications. While most of these mandates are so new they have yet to be evaluated, those that have (Ban-The-Box) indicated they have the opposite of their intended effect: minority employment opportunities ac-



tually decline. Perhaps political mandates should focus on improving social accountability and literacy rather than lowering qualifications in these critical areas.

## References

Aamodt, Michael, *Research in Law Enforcement Selection*, Radford University, Brown Walker Press, 2004

*Advancing Diversity In Law Enforcement*, Justice.gov/policediversity; EEOC.gov/policediversity, October, 2016

Agan, A., Starr, S., *Ban The Box, Criminal Records, and Statistical Discrimination: A Field Experiment*, <http://ssrn.com/abstract=2795795>, June, 2016

Bureau of Justice Statistics, [www.bjs.gov](http://www.bjs.gov), 2016

Doleac, J. and Hansen, B., *Does "ban the box" help or hurt low skilled workers? Statistical discrimination and employment outcomes when criminal histories are hidden*, National Bureau of Economic Research, <http://www.nber.org/papers/w22469>, October, 2016

Henninger, D., *Dumb and Dumber*, Wall Street Journal, October 20, 2016

Proxy Disclosure Enhancements, Final

Rule, Security and Exchange Commission 17 CFR Parts 229, 239, 240, 249 and 274, RIN 3235-AK 28, effective: 2-28-10

Slowik, S., *Compliance Update*, APA Magazine, V48 N1, January/February, 2015

Slowik, S., *Disparate Impact and EEOC v. Freeman*, APA Magazine, V48 N3, May/June, 2015

Slowik, S., *New Federal Ban-The-Box Mandate*, APA Magazine, V49 N3, May/June, 2016

Townes, C., *Raising Education Standards Could Be The Key To Better Policing*, thinkprogress.org, February 6, 2015

U.S. Department of Housing and Urban Development, *Office of General Guidance on Application of Fair Housing Act Standards to the Use of Criminal Records by Providers of Housing and Real Estate Related Transactions*, [www.hud.gov](http://www.hud.gov), April 4, 2016

Wall Street Journal, *The Diversity Police Raid the Boardroom*, August 18, 2016.



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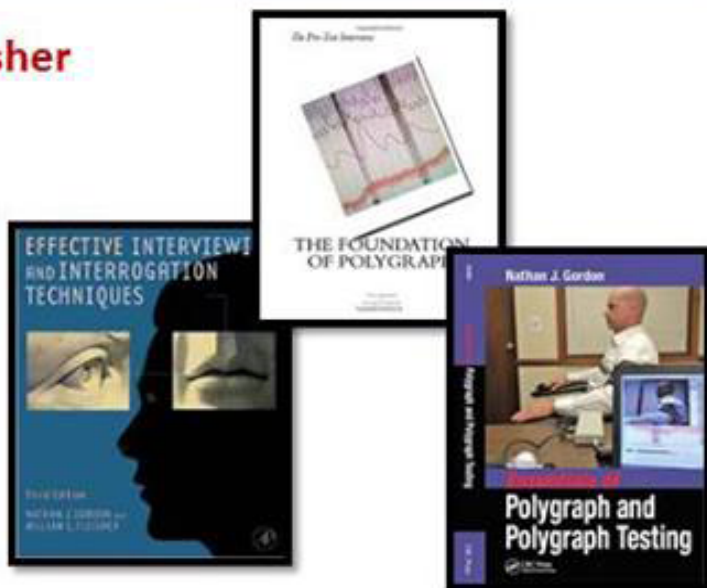
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### Abstract

This article covers the history of lie-detection in the Republic of Belarus, highlights its appliance in internal affairs divisions, the current procedure of selection and training of experts. In the article are given the results of psychophysiological researches of crime offenses and statutory documents regulating the polygraph usage. In this article is also given the information about the NGO "Polygraphology" and its activity.

Key words: history of lie-detection, polygraph of Belarus, Polygraphologist NGO.

In the Republic of Belarus the using of polygraph started in 1998 in the State Security Committee, where an officer who was trained for this organization in Moscow performed mainly screen-

ing testing. However, because of the officer's lack of the experience in criminal offenses, the Belarusian Ministry of Internal Affairs applied for help from the most experienced polygraphologists from Russia. In 2001 the Ministry trained its own experts.

Positive results of polygraph examinations and screening carried out by polygraph specialists of the criminal investigation office led to the establishment of the Department of Psychological and Technical Support in Crime Investigation at the central administrative office of the Ministry of Internal Affairs of the Republic of Belarus which was announced on 14 March, 2002. By the end of 2002, such departments had been established in all regional centers.

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After the polygraph specialists from the criminal investigation office solved a series of heinous crimes, polygraph has increased its popularity. Representatives of the Military Prosecutor's Office, State Border Service, Presidential Security Service and other services relied on assistance of specialists of the Ministry of Internal Affairs in solving crimes and conducting screening in the agency.

Today, polygraph is used by almost all law enforcement and security agencies and services of Belarus such as the State Security Committee, Ministry of Internal Affairs, State Border Committee, Presidential Security Service, Investigation Committee, State Customs Committee, State Control Committee, State Committee of Forensic Enquiries.



Each agency has its own regulations governing the procedure of polygraph usage.

Internal affairs agencies, which organize majority of polygraph examinations, applied decree No. 162 of June 4, 2008. The Ministry of Internal Affairs approved the "Instruction" on the arrangement of polygraph examina-

tion towards Belarussian citizens by internal affairs agencies. The Instruction regulates the procedure of interrogating citizens with the application of polygraph as a part of investigation activities, and defines special psychophysiological research in professional psychophysiological selection of candidates to work in internal affairs agencies. In addition to the aforementioned instruction, there is the "Order" approving the Instruction on the procedure of selection, training and access of internal affairs agencies officials to work with the polygraph, on the organization of their work (defining technical requirements of the space in which citizens can be interrogated with the use of polygraph), and on the requirements concerning the drafting of documents and reports by



the specialists, and on quality control checking their work procedures.

According to the Instruction approved by this Order, only officials with higher education, at least 3-year experience in investigative activities, and certificates of good conduct can be selected for training for further work with the polygraph. All the candidates shall go through professional psychophysiological selection and interview, and have their skills of logical thinking, communication as well as self-discipline, responsibility and other traits carefully studied. Upon graduation and on the grounds of the obtained diploma the commission set up in the Ministry of Internal Affairs authorizes permits to work with the polygraph for one-year terms. The specialist holding a permit is allowed to interrogate citizens using polygraph under the supervision of a mentor, i.e. a specialist allowed to carry out polygraph interrogation independently. Activities on arranging, making tests, and preparing reports on polygraph interrogation must be conducted under the supervision of a specialist with more than one year's experience in the field. At the end of the year, a holder of a polygraph specialist permit submits polygraph interrogations and charts together with the recommendations of the mentor to the members of the commission for review and evaluation of his or her practical knowledge of the polygraph. Having studied all necessary documents, the commis-

sion holds an interview with the specialist. During the interview, his or her knowledge of conceptual issues indicated in the Instruction is ascertained. Conceptual issues determine what a polygraph specialist should know and how he should operate. Only then the commission decides whether a specialist could be allowed to interrogate people independently using a polygraph, or whether a candidate should be turned down. The specialists who have passed the exam successfully are issued certificates. After a certified specialist has conducted at least five hundred interrogations and after checking his polygraph skills, he or she can be issued a Polygraph Professional Card. The Polygraph Professional Card gives the specialist the right to teach and consult as well as the right to carry out research work in the field of polygraph interrogation tactics and development of new methods and practices of polygraph examinations. This is how the qualification of polygraph specialist is obtained. The above-mentioned documents strictly regulate preparation of interrogations and the work of a polygraph specialist in internal affairs institutions.

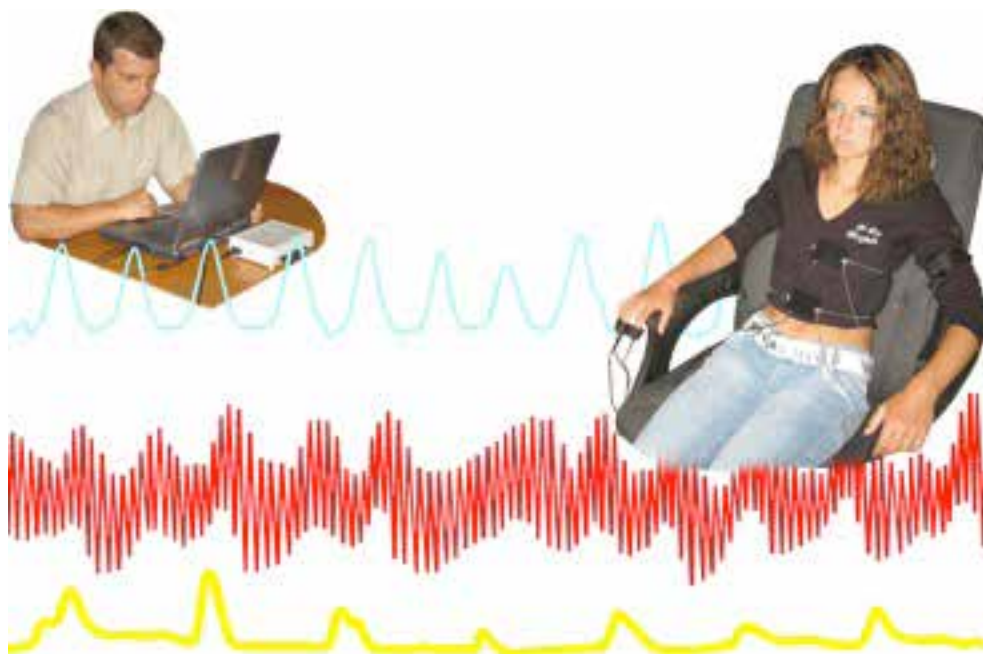
Today, the number of polygraph interrogations carried out by specialists in internal affairs structures is counted in thousands each year. By the end of 2014, specialists had conducted 40,601 polygraph interrogations, contributing to the solution of 4984 criminal cases, of which 873



were acts of murder and attempted murders (in 120 cases people were considered missing), 443 were cases of grave bodily hurts (including ones that led to the death of victims), 100 were cases of rape, 553 – of armed assaults and robberies, 2011 – of thefts (home burglaries, and car and other thefts), and dozens of other cases concerned combatting commercial crimes, trafficking of illegal drugs, and similar cases. Moreover, polygraph interrogations revealed more than 568 crimes that were unknown, or which the examined had not been suspected of until the moment of polygraph investigation. The numbers do not include the solved cases in whose course polygraph investigations put an end to groundless suspicion against the innocent and helped to channel the investigation in such a way that they finally contributed to solving these case.

Initially, internal affairs structures generally resorted to polygraph interrogation for special investigative activities to obtain necessary information contributing to solving criminal cases. The results of polygraph interrogations were of probabilistic nature and were not used as evidence in court, but since 2002 the results have often been presented to the court and taken into consideration by the judge, forming the internal conviction on the validity of facts that are to be proven during criminal case investigations. One of the first cases, where such results were decisive for pronouncing the sentence, was the interrogation concerning A.V. Kashpur, a taxi driver declared missing on 14 January 2002. A.I. Shakhrai, a police investigator, had revealed the crime before the body was found.

In October 2002 polygraph specialists from the Psychological and Technical



Support in the Investigative Activities Department (PTSIAD) of the Criminal Police of the Ministry of Internal Affairs conducted the first judicial psychophysiological forensic expertise on a criminal case taken to court (murder of K.A. Koryavaya, reported missing on 10 November 2011).

In December 2014 the State Committee of Forensic Enquiries set up the Department of Psychophysiological Research dealing with psychophysiological researches in criminal cases against sexual freedom and immunity.

To perform high quality work while investigating and solving criminal cases and conducting forensic psychophysiological assessments, a polygraph specialist should have the knowledge concerning the work of the police agents, investigators and experts, operative-investigative activities, criminal procedures, criminalistics, and other special disciplines. Moreover, a specialist should study peculiarities of methods of investigating different types of crimes.

In this respect, the educational standard in higher education (N 1-93 01 74) on advanced training of special agents on the “psychological and technical support of investigative activities” specialization with “specialists in psychophysiological research” qualification was designed and put into force. The training lasts for approximately 1000 hours spread over

20 months and is held at the Academy of the Ministry of Internal Affairs of the Republic of Belarus.

Nowadays there are more than 70 operative specialists working for law enforcement agencies, a great deal of them operate within the system of internal affairs agencies, and around 10 specialists are occupied with polygraph research and interrogations for private commissions.

Some major companies employ polygraph specialists on permanent basis; other companies invite a specialist to solve particular issues from time to time, when necessary. Although polygraph interrogations were earlier held as part of staff investigation, nowadays staff vetting is of highest priority as company managers realize that it is better to prevent serious violations of law and crimes than to have to solve them later.



To provide professional security and support polygraph specialists with updated information, to analyze and disseminate advanced

forms and methods of work, to improve professional skills and international cooperation in polygraph interrogations, a non-governmental organization Polygraphologist ([www.liedetector.by](http://www.liedetector.by)) was set up in Minsk in 2004. It brings together experienced





polygraph specialists mostly from various law enforcement agencies and some specialists that conduct private interrogations.

The Polygraphologist NGO works extensively with the Educational Institution Special Training Centre for Professional Advancement of Executive Employees and Specialists that provides special and counterterrorism training of special operation forces of Belarus and other countries. In cooperation with the Centre, the Polygraphologist conducts training of polygraph specialists in state agencies of different countries and of private polygraph specialists.

Training courses have been conducted for different law enforcement agencies and private specialists from Belarus, Ukraine, Lithuania, Russia, Kazakhstan, and some other Asian republics; while forensic experts have been trained for the Republic of Azerbaijan. Together, the Special Training Center together and Polygraphologist

trained polygraph specialists for Security Council of the Federal Republic of Nigeria.

During polygraph training, the practice of using polygraph in different countries is taught, and the rich personal experience of polygraph examiners in staff screening, and in different criminal cases and employee investigations is shared.

## References

- Vladimir Kniazev. Detektor Izhy na strazhe istiny (Lie detector guarding the truth), Print-Center, Minsk 2009. – 360 pp. (Book in Russia).
- V. Kniazev, G. Varlamov. Policraf i ego praktičeskoe primenenie (Polygraph and its practical advantages), Print-Center, Minsk 2012. – 859 pp. (Book in Russia).
- Vladimir Knyazev, Olya Matselya. History of Polygraph in the Republic of Belarus // European Polygraph. – 2016. – №1(35). – P. 11-15.



# Five Minute Science Lesson: Measurement Theory and Lie Detection

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It is sometimes said that it is not possible to actually measure a lie. Simplistic and concrete thinkers, and those opposed to the polygraph test, are content to end the discussion at this point and offer the impulsive and erroneous conclusion that scientific tests for lie detection and credibility assessment are not possible. This conclusion is erroneous, a *non-sequitur*, because many areas of science involve the quantification of phenomena for which direct physical measurement is not possible. The theory of the polygraph test, and lie detection and credibility assessment in general, in fact does not involve the measurement of deception or truth-telling. Nor does it involve the measurement, or recording, of fear or any other specific emotion. This publication attempts to introduce and orient the reader to measurement theory and its application to the problem of the polygraph and scientific lie detection or credibility assessment testing.

The analytic theory of the polygraph is that greater changes in physiological activity are loaded at different types of test stimuli as a function of deception or truth-telling in response to the relevant target stimuli (Nelson, 2015a, 2016; Senter, Weatherman, Krapohl & Horvath, 2010). In the absence of an analytic theory or hypothesis of polygraph testing, polygraph theories have previously been expressed in terms intended to describe the psychological process or

mechanism responsible for reactions to polygraph test stimuli. Although much has been learned about the recordable physiology associated with deception and polygraph testing, less work has been done to investigate psychological hypotheses about deception. In general, the psychological basis of the polygraph is presently assumed to involve a combination of emotional, cognitive and behaviorally conditioned factors (Handler, Shaw & Gougler, 2010; Handler, Deitchman, Kuczek, Hoffman, & Nelson, 2013; Kahn, Nelson & Handler, 2009). The analytic theory of polygraph testing implies that there are physiological changes associated with deception and truth-telling, and that these changes can be recorded, analyzed, and quantified through the comparison responses to different types of test stimuli. Comparison and quantification are objectives central to measurement theory. Application of measurement theory to the polygraph test will require at least a basic understanding of measurement theory.



## Types of measurement

Stevens (1946) attempted to provide a framework for understanding types of measurement. At that time, part of the intent was to clarify the selection of statistical and analytic methods associated with different types of measurement data. It was evident almost immediately that the selection of statistical was a more complex endeavor than could be characterized by the reduction of the array of data types and scientific questions to a small set of categories.

*Nominal* scales are without any rank order meaning (e.g., *cat, mouse, dog, ostrich, zombie, robot*). Mathematical transformation of nominal items is not possible. *Ordinal* measurements have rank order meaning but have imprecise meaning about the distance between items (e.g., knowing the first, second and third place winners of an ostrich race does not provide information about the difference in race times). Some mathematical transformations are possible with ordinal measurements, with the requirement that they preserve the ordinal information and meaning. *Interval* scale measurement have both rank order meaning and provide meaningful information about the difference between items. However, the zero point of an ordinal scale is arbitrary and therefore meaningless. A classical teaching example for the arbitrariness of an interval-scale zero

point is a temperature scale for which we have both the Fahrenheit and Celsius scales with different arbitrary zero points, and no expectation that zero means that there is no temperature or no heat to be measured. *Ratio* measurements include combination of rank order meaning and interval distance meaning along with the notion of a non-arbitrary zero point. In ratio scales measurements zero means none (e.g., no difference). Later, Stevens (1951) offered a set of prescriptions and proscriptions as to the type of statistics that are appropriate for each type of data.

The most common form of criticism of Stevens have focused on the fact that it is unnecessarily restrictive (Velleman & Wilkinson, 1993), resulting in the overuse of non-parametric methods that are known to be less efficient than parametric methods (Baker, Hardyck, & Petrinovich, 1966; Borgatta & Bohrnstedt, 1980), and that the type of analysis should be determined by the research question to be asked (Guttman, 1977; Lord, 1953; Tukey, 1961). Luce (1997) asserted directly that measurement theorists today do not accept Stevens' overly broad definition of measurement. Nevertheless, Stevens's work provides a useful introduction to the conceptual language and problems of measurement theory.



## Measurement theory

Measurement theory is an area of science concerned with the investigation of measurability and what makes measurement possible. Helmholtz (1887) began the tradition of scientific and philosophical inquiry into measurement theory by asking the question “*why can numbers be assigned to things*”, along with other questions such as “*what can be understood from those numbers*”? According to Campbell (1920/1957), measurement is the process of using numbers to represent qualities. In general, the properties of measurable phenomena must in some ways resemble the properties of numbers. Later work by Suppes (1951) on the differences between measurable and un-measurable phenomena and began to formalize the tradition of measurement theory by clarifying our understanding of the requirements for measurement and gave rise to a modern representational theory of measurement (Diez, 1997; Suppes, 2002; Suppes & Zinnes, 1963; Suppes, Krantz, Luce, & Tversky, 1989; Niederee, 1992). Stated simply, the representational theory of measurement involves the assignment of numbers to physical phenomena such that empirical or observable relationships are preserved.

The existence of order (rank order) relationships between measurable objects is central to the requirements for

the measurability of any phenomena. We must be able to quantify one instance of the phenomena as having greater magnitude than another. Another central requirement of measurable phenomena is that there must be a way of combining measurable objects in a way that is analogous to mathematical addition. This is, the addition of measurable phenomena must have a sensible physical interpretation. These are among the main differences between measurable and un-measurable phenomena.

For example: measurements can be applied to physical phenomena such as a person’s height, weight, and blood pressure. This is possible because these things involve physical phenomena: the linear or unitized distance from head to toe, the gravitational force on a person’s physical mass, and the unitized pressure required to overcome and occlude arterial pressure relative to a reference point such as average atmospheric pressure at sea level (i.e., 29.92 inHg or 760 mmHg). These phenomena can be combined in ways that are in some way analogous to numerical addition. That is, there is some coherent physical interpretation to additive combinations of different instances of these physical phenomena. Time limited events can also be measured. For example: if a person jumps into the air two times and if we mark the physical height of each jump and



then combine the two distances, then this is also analogous numerical addition. However, attempts to record physiological changes to polygraph stimuli does not necessarily conform to these requirements for rank order relationships and additivity. The details of how recorded polygraph data can result in the quantification of deception and truth-telling are addressed in the remainder of this publication.

Firstly, it has long been established that responses to polygraph stimuli cannot be taken or interpreted directly as a measurement of deception. Nor can responses to polygraph stimuli be interpreted as a recording or measurement of fear or any other specific emotion. Responses to polygraph stimuli are a form of proxy or substitute data for which there is a relationship or correlation with deception and truth-telling. The reactions and recorded data themselves are neither deception nor truth-telling per se. Secondly, although it may be possible to interpret rank-order the relationships between test stimuli according to the

magnitude of response, polygraph recording instrumentation today has not been designed to provide data that satisfy the additivity requirement for measurement data. In other words, attempts to make any sensible additive combination of the actual response data within each of the respiration, cardio, electrodermal and vasomotor sensors is neither intended or established. Instead, polygraph data must be transformed to a more abstracted form before it can be further analyzed and interpreted as to their meaning. Polygraph scoring and analysis algorithms, whether manual or automated, are intended to accomplish and facilitate such transformation, analysis and interpretation.<sup>1</sup>

### **Fundamental and derived measurements**

Some measurements can be referred to as *fundamental* and require no previously measured phenomena to achieve their determination. The main requirement for a fundamental measurement is that there are some physical phenomena for which there is

1. A major difference between manual and automated polygraph analysis algorithms is that manual scoring protocols were developed during a time when field practitioners did not have access to and were unfamiliar with use of powerful microcomputers. Manual scoring algorithms therefore rely on mathematical transformations that are, of necessity, very simple, if not somewhat blunt. Earlier versions of manual scoring protocols did not make use of normative reference distributions, statistical corrections or confidence intervals. Another major difference is that manual scoring protocols accomplish feature extraction tasks – the extraction of signal information from other recorded information and noise – using subjective visual methods. Automated analysis algorithm will make use of more advanced statistical methods, and will rely on objective and automated feature extraction methods that are less vulnerable to subjective interference.



some quantity that can be understood as either more or less (e.g. *is it heavy*) as opposed to phenomena that are better understood as all-or-nothing (e.g., *is it an ostrich*). If we have two ostriches, it makes some sense to ask a question such as which ostrich is heavier because there is meaningful intuition around the idea that some ostriches are heavier. But it does not make sense to ask the question which is more an ostrich, because there is no meaningful intuition that can be gained from its answer. Being an ostrich is a property, not a quantity. The weight of an ostrich is also a property, and this illustrates that some properties can also be quantities. The physical phenomena of weight or heaviness can be quantified to achieve greater precision than simply saying *very heavy* or *very very heavy* when attempting to compare the weight of two ostriches. Without the use of numerical quantities, two different observers might reach two different conclusions about which ostrich is heavier no matter how we attempt to use our descriptive adjectives. Different observers are more likely to reach similar conclusions when using measurements vs. the alternative of not using measurements. The use of measurements permits us to think about, understand, describe and plan the world around us with greater precision, which is to say greater *reproducibility*.

When a measurement is not intended

or not expected to be a precise or exact quantity it is sometimes referred to as an *estimate*. Probabilities, because they are not expected to be exact, are estimates. Although some may use or express the notion of probabilities subjectively, reproducibility of computational probability estimates is an important difference between the scientific and unscientific use of the concept of probability.

Some measurements can be thought of as *derived*, because these are achieved not through the direct quantification of a physical phenomenon, but through the comparison of an unquantified physical phenomenon with another known physical phenomenon. In principle, we can measure an *unknown* distance if we have some other distances and angles that are already *known*. For example, if we place a set of satellites in orbit around the earth we can calculate and know the locations of those satellites relative to a set of objects for which the locations are known on the earth. Then, if we have some means of receiving information from the satellites with known locations, we can use the information from the satellites to calculate and measure our own location if our location is unknown. This would be like older practices in which if we can calculate the location of objects in the solar system according to a system of counting or quantifying the number of days since a previously observed event, then we can use the location of



the object in the solar system. And the location of objects in the solar system could be used, along with a defined system of scientific and mathematical rules, to measure or quantify our current location on the earth. Another example of a derived measurement is the measurement of blood pressure, for which we use our knowledge about atmospheric pressure to quantify our assessments of cardio pressures during the systolic and diastolic phases of the cardiac cycle.

### **Scientific testing as a form of (probabilistic) measurement**

As it happens, many interesting and important phenomena cannot be either observed directly or are not subject to physical measurement. This is sometimes because the phenomenon of interest is amorphous (without physical substance), and sometimes because the information does not conform to the order and additivity requirements of measurement. If we want to improve the precision of our assessment and decisions for these phenomena we will need to rely not on measurements but on scientific tests that quantify a phenomenon of interest using statistics and probability theory. Nelson (2015b) provided a description of how a polygraph test, and tests in general, can be thought of as a single subject science experiment. Scientific tests can also be thought of as a form of probabilistic measurement, in which statistical and probability theories are

used to quantify a phenomenon that is not amenable to actual measurement.

An example of scientific testing as a form of probabilistic measurement is the testing measurement of amorphous and un-measurable psychological phenomena such as *personality* and *intellectual functioning*, during which an observed quantity of data from an individual is compared mathematically to a known quantity in the form of normative reference distribution, or probability reference model, that characterizes our knowledge of what we expect to observe. Reference models can be calculated empirically, through statistical sampling methods, and can also take the form of theoretical reference distributions that characterize our working theories about how the universe, or some small part, works by relying only on facts and information that are subject to mathematical and logical proof.

In the case of the polygraph test – for which the basic analytic theory holds that greater changes in physiological activity will be loaded for different types of test stimuli as a function of deception and truth-telling in response to the relevant stimuli – it is not the comparison of relevant and other test questions that forms the basis of our conclusions. Instead, it is the comparison of differences in reactions to relevant and other test questions to a reference distribution that anchors our knowledge about the expected



differences in responses to relevant and other questions among deceptive or truthful persons. Ideally, other questions would have the potential to evoke cognitive and emotional activity of similar quality, though perhaps different in magnitude, than the relevant target stimuli. However, it is not necessary that other questions have similar ecological value compared to the relevant stimuli to be a useful and effective basis for statistical comparison. An example of this can be seen in the use of directed-lie-comparison (DLC) questions, for which Blalock, Nelson, Handler & Shaw (2011) provided a summary of the research on their effectiveness (and for which the name DLC should not be taken to imply that response to these questions are actual lies).

### **Scientific tests as a form of prediction**

If we want to quantify or improve the accuracy or precision associated with our assessments and conclusions about future events that have not yet occurred – assuming we want to quantify our conclusions now without waiting for the event to occur – then we are once again attempting to quantify a phenomenon that is not amenable to direct observation or measurement. For this we need a *test*, with which we can make probabilistic conclusions about the future outcome. Tests used in this way can be thought of as a form of scientific *prediction*. It is not a form of magic or divination. It is a form of

probabilistic modeling.

An example of the quantification of a future event is the measurement or quantification of risk level for some hazardous event – for which it is implicit that the future event has not yet occurred and therefore cannot be physically quantified or observed. Yet another example, involving the prediction of a future event, will be the quantification of an outcome for an election that has not yet occurred. Both examples – risk outcomes and election outcomes – can involve a future event for which the associated value is binary (e.g., an event has or has not occurred, or an election has been won or not won). At any single point in time, the event has either occurred or has not occurred. We might, at times, want to simply wait to observe the result to achieve a deterministic conclusion. Deterministic observation of an outcome would, of course, obviate any need for testing and quantification.

A notable difference between the prediction of risk events and scheduled outcomes is that election outcomes can be expected to occur at a scheduled point in time, at which time it is possible to observe the result. After the scheduled event the outcome is a matter of fact, not probability. Prior to the scheduled event, the outcome can be thought of as a probability, such that there are some factors that are associated with the different possible outcomes. A goal of scientific predic-



tion involves the identification these associated factors so that they can be characterized as random variables and used to develop a predictive test or model.

Probabilities associated with the outcomes of scheduled events that have not yet occurred can be thought of as the proportion of outcomes that would occur a certain way, given the random variables that influence the outcome, if it were possible to observe the event over numerous repetitions. Effectiveness or precision of a test as a predictive model will depend on our ability to correctly understand the random variables related to the possible outcomes. Ultimately, the outcome will be a certainty, and not a probability. Prior to the outcome occurrence, it remains a probability or prediction. When prediction errors occur, their causes can be due either to random variation, or to misunderstanding and mischaracterizing the random variables related to the possible outcomes.

Some types of outcomes are expected to occur at an unknown time, or they may not occur at all for very long periods of time. We can think of these outcomes as probabilities. For example: *what is the probability that a known criminal offender will re-offend*, or *what is the probability of an earthquake in Mexico City*, or *what is the probability of a flood?* These events can also be regarded as certainties after they have

occurred, and are also subject to some relationship with related factors that are associated with their occurrence. As with other prediction models, identification and characterization of the associated factors is an important objective in the development of risk assessment or risk prediction models. Probabilities associated with risk prediction outcomes can be thought of in terms of frequencies, such that high probability events occur with greater frequency, while low probability events occur with lower frequency.

Nearly everything – including events for which our intuition tells us the likelihood is very low – can be thought of as a probability. This can, at times, be taken to absurdity. For example: *what is the probability of a zombie horde attack*, or *what is the probability of a robot apocalypse?* For these extreme examples our intuition tells us the probability is either absolute zero or essentially zero, but we can still engage some imagination as to the factors that could become associated with their occurrence. If we expand the period under consideration, then the probabilities associated with rare events can become conceivably greater. For example: *what is the probability that an ostrich will fall from the sky?* If we expand our dimensions for time and location to the notions of ever and anywhere, we can intuitively understand some non-zero probability associated with an ostrich falling from the sky, along with the kinds of factors that might



be associated with its possible occurrence (e.g., emergency ostrich airlift from a flooded ostrich farm).

Quantification of future events such as hazards or election outcomes requires that we treat the future outcome in the same manner as any other amorphous phenomena that we may wish to quantify. We treat the future outcome as a probability. Quantification of an outcome is useful only when it is a future outcome – an outcome that has not yet occurred. If information exists, and is available for observation or measurement, then the outcome is not amorphous but is a physical phenomenon. Direct observation or measurement of a future outcome will require that we wait until the future point in time. Until then, if we want to try to predict a future outcome that has not yet occurred we will need to rely on probabilities to describe the amorphous future event. Similarly, observation or measurement of a past event will require that some physical phenomena from the event are available for observation or measurement. If we wish to quantify a past event for which no physical phenomena are available, then we will once again need to rely on probability theory to quantifying the amorphous phenomena.

A famous quotation of unknown Danish authorship during the years 1937-1938 states, [in English] *“It is difficult to make predictions, especially about*

*the future.”* This simple and humorous quotation reminds us that predictions of all kinds are inherently imperfect, including predications based on scientific test data. Probabilistic conclusions are inherently imperfect. Indeed, they are not expected to be perfect. Probabilistic conclusions are expected only to quantify the margin of uncertainty associated with a conclusion. Statistical predication is an inherently probabilistic and statistical endeavor for which any conclusion is both probably correct and probably incorrect. Conclusions about deception or truth-telling, despite the desire for certainty and infallibility, will be inherently probabilistic and inherently imperfect.

### **Conclusion: scientific polygraph tests as a form of statistical classification**

Polygraph test results can be thought of a form of prediction that some other evidence exists and can be identified as a basis of evidence to confirm or refute a test result. A simpler and more general way to think about these tests will be as a form of statistical *classification*. Like other scientific tests, statistical tests intended for classification are not expected to be perfect, infallible or deterministic. Neither are statistical classifications expected to provide the same level of precision as an actual measurement of a physical phenomenon. Like other probabilistic endeavors, scientific



tests intended for classification are expected only to quantify the margin of uncertainty or level of confidence that can be attributed to a conclusion. Most importantly, the method for statistical quantification should be accountable and the results should be reproducible by others. The ultimate measure of effectiveness of a statistical test is not in the achievement of perfection or infallibility, but in the observation of correct and incorrect real-world classifications that conform to our calculated probability estimates.

If the basic analytic theory of the polygraph test is incorrect – if no physiological changes are correlated with differences between deception and truth-telling – if all physiological activity in mere random chaos with regard to deception and truth-telling, then humans have virtually no chance of ever knowing if they are being lied with any precision greater than random chance. The only way to protect oneself from deception will be to remain cynical and suspicious of all, while trusting no-one. Although perhaps tempting, this will be unrealistic and unsustainable over time. On the other hand, if it is correct that some changes in physiological activity are associated with deception and truth-telling at rates significantly greater than chance, then it is only a matter of time before technologists, engineers, mathematicians, statisticians and data analysts devise some means to increase the availability of useful

signal information amid the chaotic noise of other physiological activities and exploit those signals with some new form of scientific credibility assessment or lie detection test.

If the polygraph test is ultimately an interrogation and not a scientific test, then measurement theory is of no concern and no consequence to the polygraph profession. But in this case, people will begin to turn to other scientific methodologies when they desire a scientific test for credibility assessment, and the polygraph test may eventually be replaced. On the other hand, if the polygraph test is a scientific test, then it will serve the interests of all for polygraph professionals to become familiar with the basics of measurement theory and the discussion of scientific polygraph test results, including categorical conclusions about deception and truth-telling and conclusions about countermeasures, using the conceptual language of measurement and probability theories. Polygraph conclusions are not physical measurements; they are probability estimates.

In the absence of probabilistic thinking applied to the polygraph test, there will be an impulse for some to engage in naïve and unrealistic expectations for deterministic perfection. There will also be a desire or impulse for some to feign infallibility, due to superior professional wizardry or skill, and this



can for a time appear to be an effective marketing strategy. But feigned infallibility will lead to confusion and frustration when it is inevitably observed that testing errors can, and do, occur. A temporary corrective solution to this frustration will be to find fault with the professional, not the test – thereby restoring the false assumption of infallibility, so long as we avoid those less competent wizards less competent experts. Although gratifying for a time, this type of approach is unscientific, and will be unsustainable in the context real-world experience and scientific evidence.

Polygraph test result should be understood and described like other scientific test results, using the conceptual language of statistical probabilities. Expression of purportedly scientific conclusions, including conclusions about deception and truth-telling and conclusions about the use of countermeasure, without the use of probability metrics will invite accusation that polygraph is mere subjective pseudoscience cloaked in overconfidence. A scientific approach to polygraph testing will recognize that the task of any test is to quantify a phenomenon probabilistically when direct observation or physical measurement are not possible, and to recognize and make accountable use of the potential for testing error when deciding what value to place upon and how to use or rely upon the test

result.

Like other scientific tests, polygraph tests are intended to make probabilistic classifications of deception and truth-telling in the absence of an ability to directly observe or physically measure the issue of concern. If physical phenomena were available for observation or measurement, then a scientific test would not be needed. Because deception and truth-telling are amorphous constructs, scientific lie detection and credibility assessment are, ultimately, epistemological concerns that are sometimes the subject of complex and important philosophical questions such as: *what does it mean to say that something is true*, and *what kind of things can be said to be true*? Although deeply interesting, these must be the subject of another publication.

## References

- Baker, B.O., Hardyck, C.D., & Petrinovich, L.F. (1966). Weak measurements vs. strong statistics: An empirical critique of S.S. Stevens' proscriptions on statistics. *Educational and Psychological Measurement*, 26, 291-309.
- Blalock, B., Nelson, R., Handler, M. & Shaw, P. (2011). A position paper on the use of directed lie comparison questions in diagnostic and screening polygraphs. *Police Polygraph*



- Digest, 2011, 2-5.
- Borgatta, E.F., & Bohrnstedt, G.W. (1980). Level of measurement - once over again. *Sociological Methods and Research*, 9, 147-160.
- Campbell, N. (1920/1957). *Foundations of science: the philosophy of theory and experiment*. New York: Dover.
- Diez, J.A. (1997). A hundred years of numbers. An historical introduction to measurement theory 1887–1990. *Studies in History and Philosophy of Science Part A* 28 (2), 237-265.
- Guttman, L. (1977). What is not what in statistics. *The Statistician*, 26, 81-107.
- Handler, M., Shaw, P. & Gougler, M. (2010). Some thoughts about feelings: a study of the role of emotion and cognition in polygraph testing. *Polygraph*, 39(3), 139-154.
- Handler, M., Deitchman, G., Kuczek, T., Hoffman, S., & Nelson, R. (2013). Bridging emotion and cognition: a role for the prefrontal cortex in polygraph testing. *Polygraph* 42(1), 1-17.
- Helmholtz, H.V. (1887). Zahlen und messen, erkenntnistheoretisch betrachtet, in H.v. Helmholtz, *Schriften zur Erkenntnistheorie*, 70-108. Engl. Trans., *Numbering and measuring from an epistemological viewpoint*, in H.V. Helmholtz, (1977). *Epistemological Writings*, 72-114, Dordrecht: Reidel.
- Kahn, J., Nelson, R. & Handler, M. (2009). An exploration of emotion and cognition during polygraph testing. *Polygraph*, 38, 184-197.
- Lord, F. M. (1953). On the statistical treatment of football numbers. *American Psychologist*, 8(12), 750-751.
- Luce, R. D. (1997). Quantification and symmetry: commentary on Michell 'Quantitative science and the definition of measurement in psychology'. *British Journal of Psychology*, 88, 395–398.
- Nelson, R. (2015a). Scientific basis for polygraph testing. *Polygraph*, 44(1), 28-61.
- Nelson, R. (2015b). Polygraph as a single-subject scientific experiment. *APA Magazine*, 48(5) 101-106.
- Nelson, R. (2016). Scientific (analytic) theory of polygraph testing. *APA Magazine*, 49(5), 69-82.
- Niederee, R. (1992). What do numbers



measure? A new approach to fundamental measurement. *Mathematical Social Sciences* 24. 237-276.

Suppes, P., Krantz, D., Luce, D. and A. Tversky (1989). *Foundations of Measurement* vol. 2. New York: Academic Press.

Senter, S., Weatherman, D., Krapohl, D., & Horvath, F. (2010). Psychological set or differential salience: a proposal for reconciling theory and terminology in polygraph testing. *Polygraph* 39(2), 109-117.

Tukey, J.W. (1961). Data analysis and behavioral science or learning to bear the quantitative man's burden by shunning badmandments, in *The Collected Works of John W. Tukey*, vol. III (1986), Lyle V. Jones (ed), Belmont, CA, Wadsworth, Inc. 391-484.

Stevens, S. S. (1946). On the theory of scales of measurement. *Science*, 103(2684). 677-680.

Velleman, P. F., & Wilkinson, L. (1993). Nominal, ordinal, interval, and ratio typologies are misleading. *The American Statistician* (1993), 47(1), 65-72.

Stevens, S.S. (1951). Mathematics, measurement, and psychophysics. In S.S. Stevens (Ed.), *Handbook of experimental psychology*. New York: Wiley.

Suppes, P. (1951). A set of independent axioms for extensive quantities. *Portugaliae Mathematica* 10, 163-172.

Patrick Suppes (2002). Representational measurement theory. In J. Wixted & H. Pashler (eds.), *Stevens' Handbook of Experimental Psychology*. Wiley.

Suppes, P. and J. Zinnes (1963). Basic measurement theory. in *Handbook of Mathematical Psychology* vol. 1 (ed. D. Luce, R.R. Bush and E. Galanter). 3-76.





*A conference on WONDER WOMAN with Dr. William Moulton Marston, its creator; H. G. Peter, its artist; Sheldon Mayer, editor; and M. C. Gaines, who collaborated with Dr. Marston on the WONDER WOMAN scripts. They are shown discussing the cover design of an issue which is typical of an outstanding magazine in the comic field, reaching a sale of over 560,000 on its third issue. This photograph was taken in the office of All-American Comics, Inc.,*

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Wonder Woman was one of the first female comic book superheroes. She was the 1941 brainchild of Dr. William Moulton Marston, a Harvard psychologist and the "examiner" behind the infamous 1923 Frye vs United States case that set precedent for the admissibility of evidence that still lives today in some places. Marston was interested in the women's suffrage and the Women's rights movements of the time and some feel Wonder Woman was his attempt to popularize both.

A very interesting article about Dr. Marston and Wonder Woman may be found at;

<http://www.npr.org/2014/10/27/359078315/the-man-behind-wonder-woman-was-inspired-by-both-suffragists-and-centerfolds>

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