

APA MAGAZINE

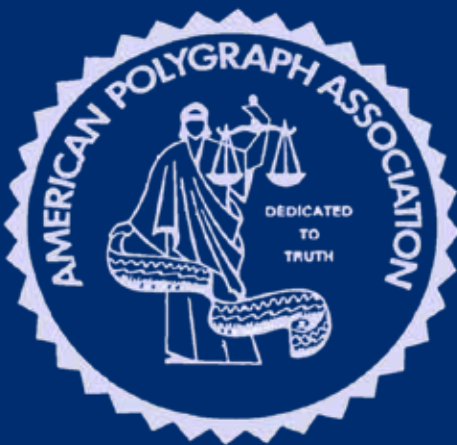
The Magazine for the Polygraph Professional

A Literature Review Of Polygraph
Countermeasures
And The Comparison Question Technique
P. 81

May/June 2015
Volume 48,3

ELECTIONS

2015



July 5-11



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Deadlines

This issue closed on
May 8, 2015.

Deadline for July/August 2015
issue is July 10, 2015.

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 commercial products, process, or service by trade name, trademark, manufacturer

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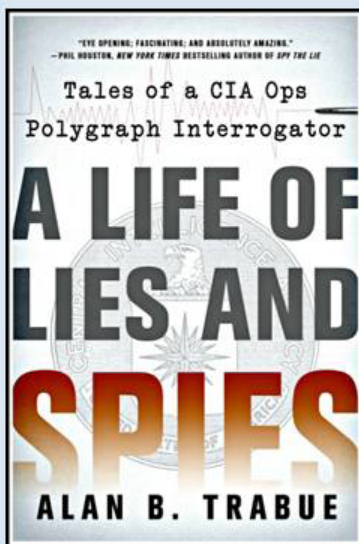
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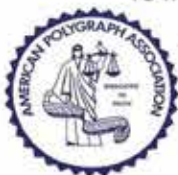
Chuck Michaels

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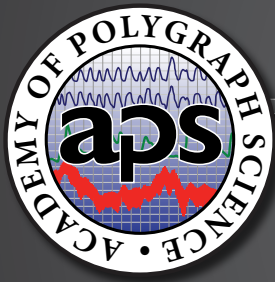
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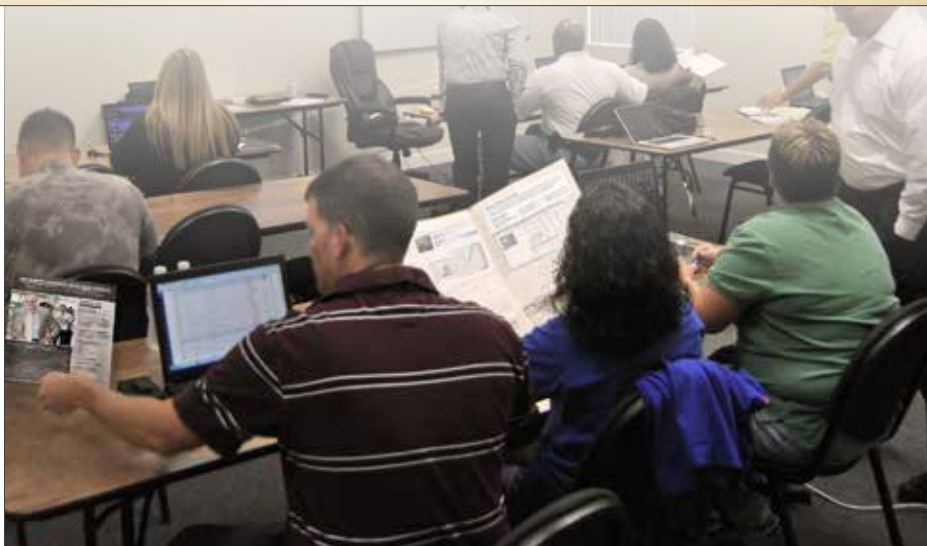
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- April 27-July 3, 2015, Fort Myers, FL
- Aug. 31-Nov. 6, 2015, Fort Myers, FL

BASIC EXAMINER’S SATELLITE COURSE

- May 4-July 10, 2015, Gainesville, FL
- October 2015, Boise, ID

POST CONVICTION SEXUAL OFFENDER TRAINING COURSE

- March 16-20, 2015, Fort Myers, FL
- November 9-13, 2015, Fort Myers, FL

ADVANCED EXAMINER COURSE

- March 23-27, 2015, Fort Myers, FL

**For registration, tuition and general
questions, contact Instructor Ben Blalock**

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E-mail: Ben@apsPolygraphSchool.com

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Polygraph Examiner Training Schedule

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Academy for Scientific Investigative Training

Basic Examiner Course

September 21 - November 27, 2015

October 5 - December 11, 2015 (Pretoria)

Advanced Examiner Course

July 27 - 28, 2015

October 3 - 4, 2015 (Pretoria)

October 10-11, 2015 (Cape Town)

Basic PCSOT

November 30 - December 4, 2015

Advanced PCSOT

July 29 - 30, 2015

Forensic Assessment Interview and Interrogation Seminar

September 28 - October 2, 2015

October 5 - 9, 2015 (Pretoria)

Academy of Polygraph Science

Basic Examiner Course (Fort Myers)

August 31, November 6, 2015

PCSOT Course (Fort Myers)

November 9 - 13, 2015

American International Institute of Polygraph

Basic Examiner Course

August 10 - October 31, 2015 (Atlanta, GA)

September 14 - November 20 (South Africa)

Marston Polygraph Academy

(all listed courses taught in San Bernardino, CA)

Basic Polygraph Instruction (400 hours)

July 6 to September 11, 2015

PCSOT Basic Course (40 hours)

June 15 to June 19, 2015

September 14 to September 18, 2015

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.

Candidate Statements for the 2015 Election of APA Board Officers

Elections will be held electronically this year from July 5 through July 11. There are seven open offices: President Elect, Vice President Government, Vice President Law Enforcement, Vice President Private, Director 1, Director 3 and Director 5. Seven qualified APA members have notified the APA National Office of their candidacy for these offices. Each candidate was invited to submit a statement of up to 500 words for publication. Below are the statements organized by office, listed in alphabetical order by last name.

Candidates for President-Elect (2)



Daniel Mangan

I hereby nominate myself for the American Polygraph Association office of PRESIDENT ELECT in the organization's upcoming July 2015 elections.

Since becoming a polygraph examiner and APA member in 2004, I have witnessed a steady drifting away from key principles that are claimed in the APA's mission statement.

The APA's mission statement says in part, "...establish the highest standards of moral, ethical, and professional conduct in the polygraph field." Further, the first of four distinct goals that appear under the APA's stated mission is "Serving the cause of truth with integrity, objectivity and fairness to all persons."

It seems to me that the APA has lost sight of its own prime objectives. To address that deficiency, I am running on the following three-point platform:

1. A bill of rights for all polygraph test subjects, similar in spirit to the checks and balances in EPPA, designed to elevate the practice of informed consent to a suitably professional level
2. An ongoing countermeasure challenge series, integral to APA seminars, designed to more fully illustrate polygraph's real-world accuracy and explore variations in examiner competence
3. Equality for all APA member examiners, primarily as it regards access of educational materials presented at APA events that are currently restricted to select groups, which creates a de facto caste society within the APA and puts underprivileged examiners at an obvious disadvantage.

Righting the wrongs that currently plague the American Polygraph Association requires an independent leader with vision, commitment and courage. I nominate myself for the office of President Elect.

Sincerely,
Daniel Mangan



J. Patrick O'burke

I am seeking the office of APA President-Elect in the upcoming election, and I am asking you for your vote. First, I would like to thank you for the opportunity to work for you the last two years as Vice President for the Private Sector. The past two terms have given me time to understand the challenges we face as a profession and to work for you, the APA Member.

I am proud as your Vice President to have been a part of several changes that substantially benefit you as an APA member. I was able to be a vital part of making it possible for online credit card payments on the APA website. This ability increased the ease, timeliness and security for Member payments. I have also been an active leader in the ongoing Board effort to upgrade the APA website.

In the last twelve months, we have made the APA website the “go to” location for polygraph information. Anyone wanting polygraph literature no longer needs to look to negative websites to find informative, evidence based information on polygraph. The APA website has also added enhanced capabilities in the Member Profile section for examiners promoting their professional background online. Within the next few months, the APA website will also have online membership and conference registrations. These are long overdue features that our membership desired for both ease of access, and professional appearance for the APA website.

My plans as President Elect are to assist in the development of a long term strategy for polygraph. There are several challenges on the horizon that will require polygraph to increasingly conform to forensic scientific principles.

The Board is also working towards transforming the current APA Standards of Practice and By Laws. This change could migrate our current Standards into separate categories of either significant ethical violations, or an infringement on a professional “Best Practice”. This will more clearly separate egregious behavior, such as accepting a bribe or perjury, from simply constructing a poorly worded polygraph question.

Restructuring a rewrite of the current Standards of Practice will facilitate a more positive compliance based approach towards Best Practices and Model Policies. This new approach will emphasize validated training over punishment consequence for examiners. Secondly, this rewrite will facilitate the APA more easily meeting the needs of our increasingly diverse global membership. The growth in our international membership requires a clear understanding of the APA role and authority for moving the profession forward.

This work will be substantial and I need your support. It will require leadership and considerable cooperation from a broad base of membership. I have already been working towards this vision with current Board leadership and hope that you will continue to place your trust in me. I sincerely ask for your vote in the July election. Thank you for taking time to read this and please contact me if you would like to be heard on these issues.

J. Patrick OBurke

Candidate for Director 1 (1)



James McCloughan

Dear fellow members and professionals. It has been my great honor to serve you as director over the last two years. I am humbly asking for your support in my bid for re-election to the position of Director 1.

For those who don't know me, I am a fulltime polygraph examiner with the Michigan State Police and hold the rank of detective sergeant. I have been with the department for over 20 years and assigned to the Polygraph Section for 15 of those years. In addition to testing, I conduct training and research, as may be necessary for the advancement of credibility assessment in the field. Some of the areas I have conducted research and training in are concealed information testing (CIT), countermeasures, and voice stress (e.g. CVSA and LVA).

In my last two year as Director 1, I have continued to be assigned to the position of Chair of the Education Accreditation Committee (EAC) and tasked with continually updating and implementing the Education and Training Program Accreditation Manual. For those who don't know, this manual sets forth the requirements programs, previously referred to as schools, must meet in order to be APA accredited. This committee is one of the busiest and not a week goes by were something needs to be accomplished on it. However daunting the task, the committee, its volunteers and the Board of Directors strive to ensure that prospective students of our profession are put first and have the structural building blocks to start out their career on the right foot.

James McCloughan

Candidate for Director 3 (2)



George H. Baranowski

I am honored to have served the American Polygraph Association in the position of Director 3 this past term. I am asking for your vote in the upcoming election to further support essential issues that all polygraph examiners, private, law enforcement or government examiners and their respective supervisors and administrators face. I support the use of scientifically and legally accepted, defensible, evidence-based practices.

Many significant developments have occurred through the efforts of your board of directors as they continue to update the constitution, bylaws, model policies and standards, stepping out of the past and into the 21st century. I feel my experience and the knowledge I have gained in this position have prepared me to assist the decisions and efforts of the board of directors to benefit all the members of the American Polygraph Association.

I have been a member of the APA since 1985 shortly after graduating from the Lincoln Zonn Polygraph Institute in Florida. I have a law enforcement background that includes; retired Michigan City Indiana Police Department retired homicide detective, then served an additional 12 years as Chief Investigator for the Prosecuting Attorney's Office. I have been in private practice as a polygraph examiner in Northern Indiana since 1990.

In addition to being a full member of the APA, I have been a member of and served on the board of the National Polygraph Association, The Indiana Polygraph Association, and I am a member of the American Association of Police Polygraphists. I have also been a member of ASTM Committee E-52 on Forensic Psychophysiology since 1997, currently chairman of subcommittee .05. I am the author of Standard E-2080 for sex offender testing and have assisted in the development of 15 other published standards.

As a polygraph examiner these past 30 years, I have seen hardships, joys, challenges, triumphs and the changes that have occurred from law enforcement and from private examiner perspectives. I can relate to my fellow examiners because I am not new to this dance. I promise to be a positive advocate for all our members. I will work diligently with President Goodson and the elected board's agenda to guard our profession from detractors. I appreciate your support, and I can be contacted at mindsightconsultants.com.

Brian Morris



I am grateful to the American Polygraph Association and all of the opportunities membership in this organization has provided me during my career. From being able to attend an accredited polygraph school, the American International Institute of Polygraph in Morrow, Georgia, to membership in state organizations recognized by the APA: Utah, California, and Idaho; the American Polygraph Association has always had a hand in every step of my polygraph career. That is why I have taken this opportunity to participate in the upcoming election and ask for your consideration when you decide how you would like to see this great organization move forward.

I began my polygraph career as a private examiner in the PCSOT arena. I worked side by side with Department of Corrections personnel in California, Utah, Idaho, Wyoming, and Washington. Through my Utah state licensing internship, I was afforded the opportunity to work with both state and local law enforcement and became a member of the American Association of Police Polygraphists. After becoming a full member of the APA, I continued my education and became a Certified Primary Instructor and continue to teach today. Following a number of years as a private and law enforcement examiner, I took the opportunity to pursue another life goal, which was attending law school. I graduated from the University of Idaho College of Law in 2012 and have been admitted to

practice law in the state of Utah. Finally, I have recently taken advantage of the opportunity to become a federal examiner and work with another excellent group of polygraph professionals.

After law school, I recognized that there were serious deficiencies in some of the areas that I practiced polygraph. First, Idaho had no state organization. So along with James Page, I authored its Constitution and by-laws and we co-founded the Idaho Polygraph Association as a state chapter of the American Polygraph Association, where I serve as its president. Next, I have had the opportunity to speak at over 120 law schools in 42 states the past 3 years discussing how important polygraph is in criminal investigations, pre-employment screenings, and for national security. We face serious challenges in our profession on multiple fronts. We need to do the things that are necessary to strongly protect our well deserved professional reputations.

Our organization is at the forefront of many areas of polygraph. Whether it is continuing education, initial training, or research and development of new techniques and standards, we need someone who can speak for all of the different stakeholders our organization represents. I believe that my experience working as all three types of examiner would allow me to help our organization continue to move forward as the preeminent place for the profession of polygraph. I look forward to this upcoming election and respectfully ask for your support. I hope to have the opportunity to work with incoming President Goodson and the other members of the board. I can be reached at pps-utah@hotmail.com.

Candidate for Director 5 (2)

Steve Duncan

My name is Steve Duncan and I am running for a Board of Directors 5 Position in the upcoming Election. Many of you know me as the guy who helps with presentations at APA Seminars, presents training at annual and regional seminars and assists Examiners in resolving problems with Pre-employment and other Testing.

I have been allowed this opportunity to share with you other qualifications which I would like you to consider when you cast your vote. I am a Graduate of the Department of Defense Polygraph Institute and have participated in numerous Continuing Education Seminars from Sex Offender Training to Courtroom Testimony to Quality Control. I retired from the Georgia Department of Public Safety in December, 2014 as the Supervisory Polygraph Examiner managing the DPS State Polygraph Unit. I have maintained a Private Polygraph Practice since 1995 conducting Examinations for clients in Georgia, Tennessee, Mississippi and Ohio. Instruction experience includes teaching for the National Center for Credibility Assessment as an Adjunct Instructor, functioning as the Deputy Director for the Argenbright International Institute of Polygraph and teaching various Polygraph related topics throughout the United States and abroad.

These qualifications give me a broad prospective of issues facing Federal, Law Enforcement and Private Examiners, both in the US and Internationally. This prospective combined with my willingness to work for the American Polygraph Association Members and having the time to invest since retiring from Law Enforcement has prompted me to run for this esteemed Office on the Board. Your support is greatly appreciated.

Sincerely,
Steve Duncan



William Fleisher

Dear Colleagues:

As my term as Director #5 of the American Polygraph Association (APA) is coming to an end, I realize how important Board experience is to being an effective Director. Therefore, I have decided to seek a second term as Director #5. I am grateful and honored that you elected me to this important job in the first place and if you reelect me, I will use the knowledge I have learned being on the Board and as the Chair of the Continuing Education and Profession

Development committees to do an even better job in the future.

In all, I have 40 years' experience as a polygraph examiner and instructor, 28 years in law enforcement and government service (much of which was in supervisory and management positions), as well as my 19 years' experience as a private examiner. Most importantly, the experience I have gained as an APA Board Director has put me ahead of the substantial learning curve needed to be an effective Board member.

If you reelect me, I promise to continue to faithfully serve the interests of all APA members, whether private, government, or law enforcement. Having been a government/law enforcement examiner since 1975 and then a private examiner since 1996, I understand the complexity of our profession and the dynamics of the APA as an organization. I am especially attuned to the nuances of being a private versus government/law enforcement examiner.

I will continue use my proven critical management skills gained on the police force and as a federal agent to assist the APA officers and members in promoting the Forensic Psychophysiology field and maintaining the integrity of our association. As an APA Director, I will steadfastly support my fellow APA officers in directing our organization forward.

I will continue to make myself available and listen to APA members' ideas and concerns about our organization and profession. I will continue to champion the concerns of our International members to ensure their voice is heard on the APA board. I know the importance of working harmoniously with my fellow Board members to protect APA talent, resources and reputation.

Finally and most importantly, drawing upon my considerable experience and ability to work with people I promise you, the APA examiner, that if you reelect me as Director #5, I will continue to fulfill the duties and responsibilities of that position to the best of my abilities and talents. So once again I am respectfully asking for your vote.

Bill Fleisher

2015 APA Elections Schedule



- **July 4:** Email notification of elections (Ensure your email address is current on the APA website)
- **July 5 – 11:** Electronic elections.
- **July 13:** Posting of results on the APA website.
- **August 2 – 8:** Runoff elections, if necessary.
- **August 10:** Notification to winners. Posting of final election results.
- **September 3:** Officers sworn in at the APA Annual Banquet.

For additional information, contact Don Krapohl at APAKrapohl@gmail.com or (803) 463-1096.

IN MEMORIAM
JOSEPH R. KOZENCZAK
(MARCH 20, 1940 - MAY 13, 2015)

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U.S. Veteran Joseph R. Kozenczak of Des Plaines, Illinois passed away May 13, 2015. Born March 20, 1940 in Chicago, Illinois, the son of the late Walter and Stella Kozenczak and brother of the late Frances Braunsky. Joe is the former Chief of Police of Des Plaines, Illinois where he worked for 27 years. He is recognized for his role of Chief Investigator of the John Wayne Gacy Serial Murder Investigation, 1978. A graduate of the 126th Session of the FBI National Academy, Joe was recognized by the International Association of Chiefs of Police as one of the top ten police officers nationally for his investigation work on the Gacy Case. Joe frequently lectured nationally and internationally on investigative procedures developed during the Gacy Case.

His work on the case was subject of a book he co-authored with his wife Karen, *The Chicago Killer*, and the North American television mini-series, *To Catch A Killer*. Joe authored numerous articles on the case and a variety of other police topics. Joe's police career in Des Plaines was highlighted by his promotion to Sergeant in the 1960's. Lieutenant in the early 1970's, Chief of Detectives in 1978, Captain in 1980 and Chief of Police from 1985 to 1989. After retiring from the Des Plaines Police Department, Joe enjoyed a career as a regional security director in the United States and Canada for TNT Express, Vice President of Investigations, John Reid and Associates, Criminal Justice Specialist for the State of Illinois, and practiced as an Illinois licensed private investigator. Having obtained an Associates of Science Degree in Police Science and Administration from Triton College, River Grove, Joe went on to obtain a

Bachelor of Arts, DePaul University, Chicago, and a Masters of Public Administration, Roosevelt University, Chicago. He holds a Masters Degree from the John E. Reid College of Deception and Detection, Chicago, IL. Joe served honorably in the United States Army Military Police Corps in the 8th Army in Korea and the 6th Army in Arizona. He achieved the rank of Sergeant. An accomplished printmaker and artist, Joe enjoyed his association with the Evanston Art Center and the friendships he developed there. An avid Arthur Canon Doyle enthusiast, Joe took great pride in having been granted the Hugo's Companions' Baker Street Tankard Award, March 20, 1981. He had a significant interest in the paranormal.

Joe is the cherished husband of wife Karen and devoted father of Natalie Jude Hua Kozenczak (Brandon). He was the loving father of Michael Joseph (Mary) Kozenczak, Lisa Marie Kozenczak (D. Maggio), and Deborah Ann (Ben) Zerfas, children of Marcia Kozenczak, his former dear wife. He is the beloved grandfather of Megan (Alex) Pitner, and Michael (Mickey) Kozenczak, Jr., and is survived by nieces, nephews, cousins, sister-in-law

Cathy (Roger) Byrne, Erin (Sean) Mc Elroy, children Kellan, Toran, and Patrick (Sharon) Byrne. Brother-in-law Michael (Susan) Greene, Dr. Michelle Greene (Cullen) Shelton, baby Laine, and Christopher Greene. Lifelong friend, John "Dave" Kolodziej, D.D.S., and other "Augusta Playground" associates. His pet Russian Blue Cat Jade was his dear companion. A memorial gathering will be taking place on Friday, May 22, 2015, beginning at 9:00 a.m. Until time of Memorial Mass at 10:00 a.m. At The Shrine of Our Lady of Guadalupe (located in the Maryville Campus) 1170 North River Road, Des Plaines, Illinois 60016. Memorial donations can be made in the name of Joe to St. Jude Hospital, 501 St. Jude Place, Memphis, TN 38105-9959 or Covenant House, Times Square Station, P.O. Box 731, New York, NY, 10108-0900. Funeral care provided by G. L. Hills Funeral Home. For info please call (847) 699-9003.

JOIN US TUESDAY, SEPTEMBER 1, 2015

5:30-8:30 PM

For a

MYSTIC BLUE DINNER CRUISE

The casual, yet lively, atmosphere of a *Mystic Blue* Dinner Cruise in Chicago is a terrific way to cap off the day with a group of friends, business associates or that special someone. Watch the sun set on the horizon and the Chicago skyline light up as you enjoy panoramic views including iconic sights like Willis Tower, Navy Pier and John Hancock Center.

You'll have 2.5 or 3 hours to take in the views and sample tasty dishes from the *Mystic Blue* dinner buffet. The onboard DJ will keep the tunes turned up throughout the cruise so you can show off those dance moves. Don't hear your favorite song? Special requests are welcome at the DJ booth!



Be sure to get your tickets (\$35 per person)

Mark your seminar registration or contact the APA National Office

1-800-272-8037



50TH ANNUAL APA SEMINAR

AUGUST 30 - SEPTEMBER 4, 2015
PALMER HOUSE HILTON HOTEL,
17 EAST MONROE SREET
CHICAGO, IL 60603



ADVANCED REGISTRATION IS REQUIRED

(All room reservation must be made individually through the hotel's reservation department)

888-370-0980 - In house - 312-726-7500

APA FED ID #52-1035722

ROOM RATE: \$139.00, Single/Double occupancy, plus taxes (currently 16.4%), all reservations must be guaranteed by a major credit card or advance deposit in the amount of one night's lodging. Reservations not guaranteed will be automatically cancelled at the cut-off date.

CUT-OFF DATE for hotel reservation is 8/13/15 or until APA's room allotment is fulfilled. Number of rooms is limited. Individual departure dates will be reconfirmed upon check-in. (72 HOUR CANCELLATION NOTICE)

REGISTRATION HOURS: Sunday, 8/30/15 10:00am - 5:00pm Monday, 8/31/15 7:00am
Seminar Sessions: Sunday-Friday, 8/30/15 - 9/4/15

APA Cancellations and Refund Policy: Cancellations received in writing prior to 8/13/15 will receive a full refund.

Tax Deductions: All expenses of continuing education (including registration fees, travel, meals and lodging) incurred to maintain and improve professional skills are tax deductible subject to the limitations set forth in the Internal Revenue Code. **Registration fee includes professional instruction, seminar materials, refreshment breaks, Sunday Reception and Thursday banquet)**

TUESDAY NIGHT EVENT
MYSTIC BLUE CRUISES
(dinner, dancing, entertainment and networking)
5:30 - 8:30 PM
Tickets \$35
#tickets___@\$35=_____

THURSDAY NIGHT BANQUET
___ #attending
___ will not attend
___ vegetarian meal(s)

NAME: _____ PHONE: _____
ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____
NAME ON BADGE: _____ GUEST NAME: _____
GUEST NAME ON BADGE: _____

PAYMENT RECEIVED BY AUGUST 13, 2015
___ \$350 - MEMBER/APPLICANT
___ \$500 - NON-MEMBER
___ \$125 - PER GUEST (Cannot Attend classroom presentations)
(Guest fee includes: Sunday Reception, Guest Brunch Monday and Banquet Thursday)

PAYMENT RECEIVED AFTER AUGUST 13, 2015
___ \$400 - MEMBER/APPLICANT
___ \$550 - NON-MEMBER
___ \$175 PER GUEST (Cannot Attend classroom presentations)
(Guest fee includes: Sunday Reception, Guest Brunch Monday and Banquet Thursday)

ADDITIONAL \$50 FOR THOSE WHO PAY AT THE SEMINAR

Your nametag is your admission to all events and activities. Please wear it at all times during the conference.

PLEASE MAKE CHECKS PAYABLE TO: APA REMIT TO: APA, P O BOX 8037, CHATTANOOGA, TN 37414
CREDIT CARD PAYMENTS: Card Number _____
Expiration date: _____ cvv2: _____
Signature: _____

By signing here, I give my permission for my name and email address to be listed on the APA Mobile App

PLEASE CONTACT THE APA NATIONAL OFFICE IF YOU HAVE QUESTIONS

LISA JACOBS, MANAGER
1-800-272-8037
manager@polygraph.org

THE CHICAGO CUBS AND HISTORIC WRIGLEY FIELD



The Chicago Cubs will be in town the week of the seminar and Monday, August 31 is a night game! The Cubs will be hosting the Cincinnati Reds. We have a limited number of tickets available, cost is \$15. Please contact the APA National Office if you are interested. 1--800--272--8037



50th APA ANNUAL SEMINAR POLYGRAPH IN THE 21ST CENTURY

CHICAGO

50

ILLINOIS

August 30 - September 4, 2015
Hilton Palmer House

Michael C. Gaugler Seminar
Program Chair 2015

SUNDAY, AUGUST 30, 2015	
CLASSROOM A	
1:00 - 3:00 PM Relevant Scientific Domains Guillermo "Gil" Witte San Diego Police Dept.	3:00 - 5:00 PM Screening Principles Using Evidence Based Practices Guillermo "Gil" Witte San Diego Police Dept.
SCHOOL DIRECTOR'S MEETING 1:00 - 3:00 PM (Room to be announced)	
APA WELCOME RECEPTION 6:30 - 8:30 PM	



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James Healy

MONDAY, AUGUST 31, 2015	
CLASSROOM A (disponible en Espanol)	
7:30 - 8:00 AM Break Sponsored by:	
8:00 - 9:00 AM OPENING CEREMONIES	
Call to Order -	Raymond I. Nelson, APA President
Master of Ceremonies -	Michael C. Gougler, Seminar Program Chair
The National Anthem -	Chicago Police Department Honor Guard
Presentation of Colors -	Chicago Police Department Honor Guard
Pledge of Allegiance -	
Taps -	Richard Pascuito
Welcome to Chicago -	F. Lee Bailey
Invocation -	Barry Cushman, APA Director
9:00 - 9:15 AM Break Sponsored by:	
9:15 - 12:00 NOON High Profile Polygraph Cases Donnie Dutton, APA Past President	
12:00 NOON - 1:00 PM Lunch on your own	
1:00 - 5:00 PM ESS Mark Handler, APA Editor	
2:45 - 3:00 PM Break Sponsored by:	
(CONT'D) ESS Mark Handler, APA Editor	
CINCINNATI REDS vs CHICAGO CUBS WRIGLEY FIELD 7:05 PM \$15 per ticket Contact the APA National Office 1-800-272-8037 (tickets are limited)	

TUESDAY, SEPTEMBER 1, 2015

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

CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
8:00 - 10:00 AM AFMGQT Patrick Roche	8:00 - 10:00 AM Current Issues in Polygraph (Panel Discussion) Gordon L. Vaughan, Esq. APA General Counsel F. Lee Bailey Donnie Dutton Mark Handler David Raskin Pam Shaw	8:00 - 10:00 AM The Inconclusive/No Opinion Exam - Who's Fault Is It? Darryl Starks APA VP Government

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 Federal ZCT/You Phase Patrick Roche	1:00 - 2:30 PM Legal Issues in PCSOT Gordon L. Vaughan, Esq. APA General Counsel	1:00 - 2:30 PM TBA Frank Horvath, PhD APA Past President Stanley M. Slowik
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**POLYGRAPH INSTRUMENTS WORKSHOP
2:30 - 4:00 PM**

CLASSROOM A LAFAYETTE INSTRUMENT	CLASSROOM B AXCITON	CLASSROOM C LIMESTONE TECHNOLOGIES	CLASSROOM D STOELTING COMPANY
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**5:30 - 8:30 PM TUESDAY NIGHT EVENT
MYSTIC BLUE CRUISES
DINNER and DJ ENTERTAINMENT**

(meet in lobby at 5:30, load buses, cruise sails at 6:30, return to pier 8:30, load buses, return to hotel)

WEDNESDAY, SEPTEMBER 2, 2015

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

CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
<p>8:00 - 12:00 NOON Everything You Ever Wanted to Know About Screening, But Were Afraid to Ask Donald J. Krapohl APA Past President</p>	<p>8:00 - 10:00 AM A Defensible Theory for Polygraph: The Preliminary Process Theory (PPT) John Palmatier, PhD</p>	<p>8:00 - 12:00 NOON PCSOT J. Patrick O'Burke APA VP Private</p>

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

<p>(CONT'D) Everything You Ever Wanted to Know About Screening, But Were Afraid to Ask Donald J. Krapohl APA Past President</p>	<p>10:00 - 12:00 NOON What Does Theory Suggest for Polygraph Practice John Palmatier, PhD</p>	<p>(CONT'D) PCSOT J. Patrick O'Burke APA VP Private</p>
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12:00 Noon - 1:00 PM Lunch On Your Own

<p>1:00 - 5:00 PM The Tactical Polygraph and Interview/Interrogation Thoughts Lance Fragomelli, FBI Mike Sullivan, Assistant US Attorney</p>	<p>1:00 - 5:00 PM Countermeasures Walt Goodson APA President Elect</p>	<p>1:00 - 5:00 PM The UTAH Technique David Raskin, PhD</p>
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2:45 - 3:00 PM Break Sponsored By:

<p>(CONT'D) The Tactical Polygraph Lance Fragomelli, FBI Mike Sullivan, Assistant US Attorney</p>	<p>(CONT'D) Countermeasures Walt Goodson APA President Elect</p>	<p>(CONT'D) The UTAH Technique David Raskin, PhD</p>
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THURSDAY, SEPTEMBER 3, 2015		
7:30 - 8:00 AM Break Sponsored By:		
CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
8:00 - 12:00 NOON Understanding Dynamics of Close Quarter Attacks and Counters Erwin Ballarta Executive Director Texas Police Association	8:00 - 3:00 PM Effective Diagnostic Testing Using the Directed Lie Comparison (Course approved by Texas Dept of Licensing and Regulation) Lt. Matt Hicks Lt. Matt Mull Lt. Dennis Westerman Texas Dept of Public Safety	8:00 - 12:00 NOON The Wizard's First Rule: Debunking Common Myths in the Polygraph Profession About Countermeasures Charles Honts, PhD
9:45 - 10:00 AM Break Sponsored By:		
12:00 Noon - 1:00 PM Lunch On Your Own		
1:00 - 3:00 PM Federal Scoring System Donnie Dutton APA Director	8:00 - 3:00 PM Effective Diagnostic Testing Using the Directed Lie Comparison (Course approved by Texas Dept of Licensing and Regulation) Lt. Matt Hicks Lt. Matt Mull Lt. Dennis Westerman Texas Dept of Public Safety	1:00 - 5:00 PM PCSOT Issues Don Grubin and Eric Holden APA Past President
2:45 - 3:00 PM Break Sponsored By:		
3:00 - 5:00 PM PLE Principles Mark Handler, APA Editor Pam Shaw, APA Past President	3:00 - 5:00 PM Singapore Research Cholan MINDEF director	(CONT'D) PCSOT Issues Don Grubin Eric Holden, APA Past President
SCHOOL INSPECTOR TRAINING 3:00 - 5:00 PM (ROOM TO BE ANNOUNCED)		
APA ANNUAL BANQUET AND AWARDS 6:30 - 7:00 PM COCKTAILS 7:00 PM DINNER		

FRIDAY, SEPTEMBER 4, 2015		
7:30 - 8:00 AM Break Sponsored By:		
CLASSROOM A (disponible en Espanol)	CLASSROOM B	CLASSROOM C
8:00 - 12:00 NOON Polygraph and Confession Law Gordon L. Vaughan, Esq. APA General Counsel	8:00 - 3:00 PM PCSOT - A Practical Approach to Interviewing and Target Selection Raymond I. Nelson APA Chairman	8:00 - 12:00 NOON Best Practices - Tips that Help and Things that Work George Baranowski APA Director
9:45 - 10:00 AM Break Sponsored By:		
12:00 Noon - 1:00 PM Lunch On Your Own		
(CONT'D) Polygraph and Confession Law Gordon L. Vaughan, Esq. APA General Counsel	(CONT'D) PCSOT - A Practical Approach to Interviewing and Target Selection Raymond I. Nelson APA Chairman	(CONT'D) 8:00 - 12:00 NOON Best Practices - Tips that Help and Things that Work George Baranowski APA Director
12:00 Noon - 1:00 PM Lunch On Your Own		
1:00 - 3:00 PM History of the APA: A Human Perspective Lynn Marcy APA Past President	8:00 - 3:00 PM PCSOT - A Practical Approach to Interviewing and Target Selection Raymond I. Nelson APA Chairman	1:00 - 3:00 PM Polygraph and Arson Investigations Cynthia Coronado, Dallas Fire Rescue Dept Dallas, Texas
3:00 PM CLOSING REMARKS WALT GOODSON APA PRESIDENT		

President's Message

Raymond Nelson

Election season is here, so let the voting begin. It always bears reminding that politics and elections – though they may sometimes degrade into a contest around social popularity – is actually about the future. In the coming weeks the APA will choose its next Board of Directors and President Elect, and we will begin to prepare for the transition that will take place at the 50th anniversary seminar in Chicago during September. An interesting feature of any transition is the perception – regardless of reality – of a decrease in structure and predictability. Perhaps the most interesting aspect of this is that unstructured transitions can be a potential time for problems to occur, whether in the form of planned disruption or planned opportunism, or due to some latent social or individual pathology, or perhaps due to simple misunderstanding and confusion. In schools and institutions transitional instability is easily observed because problems happen not usually during well-structured class time but instead during the seemingly less structured spaces in-between structured activities. Manage transitions well and the rest is easy.

Some stability is built into the transition of the APA leadership in the form of the role of president elect, and the fact that we will be voting for the 2016 Board of Directors and the 2017 APA President. Additional stability is imposed by the fact that the varied roles and tasks of the APA Board require both interdependence and sharing of responsibilities and authorities among the elected leaders who administrate different committees and tasks on behalf of the membership we serve. The goal is to serve the membership by managing today and by planning for the future. Fifty years ago, the founders and charter members of the APA planned effectively for our future today, in part by recognizing that three existing organizations, though they may have had separate identities and origins, had important shared values and shared objectives involving



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the detection of deception, the importance of honesty and integrity, and a vision for the potential contribution that a more clearly structured and sensibly organized profession can make for the agencies and communities we serve.

Today, fifty years after the founding of the APA, we find ourselves in the role as the most important worldwide source for standards, information and training. Our success today is in part a result of vision and planning by leaders who thought well beyond the myopic self-interest of individuals and individual organizations. Our success today is the result of ideas which, in their most general form, are more concerned with each tomorrow than today or yesterday. Our task today is to do the same: plan for the future.

The polygraph profession today is, for many practical purposes, the same profession as it was 50 years ago. Polygraph examiners seek the truth one individual at a time, in the same way that scientists seek the truth, one sample or one research question at a time, But the level of detail and information available to describe and account for polygraph today is much different than it was 50 years ago, just as the level of detail available to other fields of science has advanced during the past 5 decades. For example: the mental health profession of 50 years ago was still without many of the highly developed norm-referenced psychometric tests available today, and as a result tended to rely much more heavily on unstructured clinical judgment and projective tests whose interpretation is potentially problematic due to highly subjective interpretation schemes. Polygraph professionals to-

day are increasingly expected to – and can actually explain and account for the polygraph test in ways similar to other professions and other fields of science, testing and forensics. But there are remaining challenges – among them the continued movement towards federal regulation of forensic science standards.

Time never stops (and sometimes seems as if it is speeding up); despite our successes and despite the obvious value importance of our work to the safety and integrity of our agencies and communities, we will continue to face new challenges. For this reason, the need for future planning and continued advancement will not end. In the same way that each individual professional is ethically responsible for acquiring and making use of continuing education and new information, the profession as a whole is ethically and morally obligated to make use of new knowledge. To succumb to temptation or impulse or arrogance to find comfort in tradition would be equivalent to a choice not to evolve, and will eventually lead to the replacement of the polygraph profession and polygraph professionals with some new and disruptive technology that better addresses contemporary needs and challenges. It is not difficult to find examples of industries and technologies that have experience such wholesale disruption during the past 50 years, and it would be naïve to expect the next 50 years to be much different.

To be clear, the polygraph profession has made many important advances. Statistical tools and concepts - and published normative reference data – are available to every field examiner today. Interviewing methods have become more systematized and increasingly evidence-based. Our knowledge and understanding have improved regarding the physiological and psychological mechanisms that form the basis of instrumental lie detection. But future challenges will always present themselves, and it is the role of our leaders to plan for the future, just as it is the role of scientists, technologists and engineers to ensure that our knowledge and technology infrastructure are capable of meeting new challenges.

The next new technology for the instrumental detection of deception may be just on the horizon. Certainly, there is more funded research and more funded researchers engaged in the task of replacing the polygraph test than improving the polygraph test. And whereas we polygraph examiners have tended to view ourselves, the expert polygraph examiner, as the most important variable in the complex social and scientific equations that make the polygraph effective, legislators, citizens and scientists in the communities we served have sometimes tended to view things differently – sometimes even viewing the polygraph examiner as the most problematic aspect of the polygraph test. One important solution to this has been numerical scoring and the capability of achieving rather high

rates of reliability and replicability ($\sim .90$) with our contemporary evidence-based and norm-referenced scoring protocols. Despite this, I predict that there will be continued interest in the development of lie detection technologies that de-emphasize the role of the expert examiner. I predict that the next generation of effective scientific lie detection technologies will be premised on three things: 1) a more highly automated test administration paradigm, 2) a more highly automated and statistically based analysis, 3) an emphasis around the probabilistic nature of test results along with a corresponding absence of frustrated expectations for perfection.

Technology companies exist today that are beginning to make realistic and credible claims of achieving automated lie detection at levels rivaling that of the polygraph. Scientific and statistically minded data scientists at several universities are able to use, machine learning theories, artificial intelligence, and statistical learning theories to predict and classify an increasing array of complex and sophisticated yet uncertain phenomena with impressive accuracy (though predicting the economy still remains a challenge). There is little doubt that scientists and engineers will continue to apply these methods to the task of discriminating truth and deception, and little doubt they will experience some success in doing so. Just as there are no unique or universal correlates between physiological and deception, there are no unique and universal correlates for the detecting and recording of physiological reactions. Success is simply a matter of discovering and making systematic use of knowledge and information. To survive and thrive in the next 50 years will require that we do the same: discover and make use of new knowledge information. This means that polygraph procedures 50 years from now make look somewhat different than they do today. Perhaps recognizable in their origins, but different to the extent that they will make use of new knowledge and information.

For those of us who choose to make a career and profession out of the often interesting and sometimes tedious task of polygraph and the deception detection, I predict that the most important things we can do to continue to provide maximum value and be of maximum service to our agencies and communities are these: 1) increase our knowledge around science, including the application of statistical learning and machine learning methods to discriminate truth and deception, and 2) learn to make more effective use of data science and automation for technology based tasks, and perhaps most importantly 3) increase knowledge and effectiveness and developing information at the human level, with greater emphasis on the development of information that can inform evidence-based risk assessment and risk management strategies. I say this is perhaps most important because our ability to develop information at the human conversational level

is the one skill that is not yet likely to be effectively automated, and represents the most unique and important contribution of the expert polygraph examiner to the effectiveness of any polygraph exam and any polygraph program. Aside from strategies and gimmicks, among the most effective ways to develop information from individual persons is to remain interested in understanding people as unique individuals. Our ability to do this cannot yet be replicated by any machine, though there is scientific interest in this area as well. It will not serve our goals to resist the use of advanced technology or scientific knowledge, including the automation of some of the more routine, repetitive, and technical aspects of the polygraph. It will serve our future goals to continue to increase our scientific competence and continue to develop evidence-based professional practice standards that make use of scientific and technical knowledge at the level of human interaction and the development of information in the polygraph interview context. To accomplish this we will need to emphasize both interest in scientific technologies, and a genuine interest in human interactions.

Vote.

Board of Directors' Reports

Walt Goodson
President Elect

Do you know the difference between education and experience? Education is when you read the fine print; experience is what you get when you don't. – Pete Seeger
On the last day of 2014, the APA Board of Directors suffered an incredible loss of education and experience. We reluctantly accepted Mr. Don Krapohl's retirement from the APA Board as our editor, past-president and so much more. I feel

so very blessed to have served with Don. Don was always the voice of reason and he presented his thoughts with a level of diplomacy I have never experienced.

Over the years, I can't count the number of lengthy deliberations, to resolve an issue, the APA Board endured only to see them end in stalemate. In many of these situations, Don would raise his hand and humbly offer an elegant resolution to the problem. Fifteen seconds later, we had all agreed to follow Don's wisdom and had moved to the next agen-

da item. Don would always open with, “It’s been my experience that...” or “If it’s the will of the board...” and then provide the solution that would leave the APA Board dumbfounded as to why we couldn’t figure that out an hour earlier. Now that I have ruminated on this for a while, maybe it was a little sinister of Don to let the Board suffer through these deliberations for as long as he did before he offered salvation. If it was intentional, well then I like him even more.

My biggest fear in losing Don was maintaining the high quality of the APA publications. However, if you have leafed through (or whatever you would call perusing a pdf) this issue or its antecedent you have no doubt noticed their continued professional quality. Editor Mark Handler and Assistant Editor Nayeli Hernandez have dedicated a tremendous amount of their time and energy continuing the high standards of all APA publications as well as our website. When you see them, please thank them personal for their dedication and altruism.

One of the many areas Mark is moving the APA forward is via a new website. As the old saying goes, you never get a second chance to make a first impression. Well I think this is very true when it comes to our website. VP Patrick O’Burke made several recommenda-

tions to improve the website and Mark has found a simple and cost effective solution that will drastically improve the professional look and feel of the website, as well as offer countless tools and features for the membership. It will give our members and customers much easier access to information, as well as provide options for our members to have a much greater web presence. You will hear much more about this in the near future.

Here are just as a few random reminders:

The 50th APA Annual Conference and Seminar is rapidly approaching in Chicago at the end of the summer. I’m sure this magazine is brimming with great information related to this seminar, so I won’t cover it here. I will just leave you with a few thoughts if you have not committed to attend this seminar. First, this conference is not in some random suburb, it’s in downtown Chicago at the Palmer House! You will probably never see a polygraph conference in the heart of such a great city again and you won’t want to miss this chance of a lifetime. Second, there will be some legendary members recognized during the conference that will make this a very special experience. Finally, the APA has never gone into the red on a seminar, but all that is about to change. The APA is spending money to make the 50th seminar a truly

memorable experience, thus your conference fee is an exceptional value this year.

The APA elections are approaching, so don't forget to vote! I know many of you don't vote because you don't know the candidates. For those of you in this situation, I'll make a recommendation. Since the past is a good indicator of the future, I always vote for the smartest candidate with demonstrable prior public service to their constituency.

Members who wish to serve on committees, I have big plans for my upcoming tenure as president. It will include overhauling our standards of practice and creating guidelines for each of the standing committees to improve their efficiency. It will also include a new strategic plan, as well as revisiting APA membership prerequisites and membership retention. If you wish to serve on a committee in the coming year, please notify the National Office or sign up for a committee in Chicago.

Finally, the APA needs to improve how it serves the international membership. The APA must provide the international community with realistic expectations of what it can and cannot do for this rapidly growing membership segment. The APA Board has discussed hosting a forum for international members to work

with the APA Board to provide realistic membership services to the international community. If you are an international member planning to attend the Chicago seminar and have an interest in taking part in this forum, please introduce yourself to me in Chicago or feel free to email me at: presidentelect@polygraph.org

Thank you for all you do to make this world a better place.

Mike Gougler Seminar Chair

The 50th anniversary APA Annual Seminar will be held in Chicago, Illinois from August 30th through September 4th, 2015.

The theme of the conference will be "Polygraph in the 21st Century."

You can find a copy of the seminar schedule on the APA website, as well, as the APA magazine.

The Tuesday night event will be the Mystic Blue River Cruise. It is a very nice sightseeing and dinner event.

We will also purchase 100 tickets for the Chicago Cubs game Monday night. These tickets will be available on a first come first served basis. For those base-

ball fans, do not miss the opportunity to see historic Wrigley Field.

The schedule has been coordinated so that attendees will be able to receive the required continuing education and PCSOT hours. There is also a block of instruction approved by the Texas Department of Licensing and Regulation. Translation services (Spanish) will be provided at the banquet and in classroom A throughout the entire seminar.

The training schedule is very diverse and should have something for everyone.

Special thanks to Steve Duncan, for again providing the technical support for all the speakers. Thanks to all the vendors for their continuing support of the APA and the annual seminar.

I encourage all members to submit nominations for the APA awards. Please recognize those deserving members for their contributions to the polygraph profession and the APA.

See you in Chicago for the “Golden Anniversary” of the American Polygraph Association.

J Patrick O’ Burke
VP Private

The following is a series of articles about compliance with professional Best Practices in the polygraph profession. At the last Board meeting we had some real discussion about how to better understand the APA’s role in managing our oversight of polygraph schools. The issue of school accreditation versus school recognition is a complex problem. Everyone also agreed on the vital role schools play as the first real introduction into polygraph ethics and professional conduct. While we did not solve the issue, real progress was made on understanding what the APA is capable of. I believe that the issue will be discussed much more thoroughly at the APA Seminar in Chicago when all of the school directors meet. Thank you to those that sent your suggestions.

While schools have a distinct influence on examiners, they are clearly not the only influence in long term direction for professional growth. Continuing education and adherence to the APA Standards of Practice are our continuing roadmaps to long term professional performance. Like a roadmap, they sometimes change and improve over time. These components are the positive reward mechanisms the APA has to guide examiners along a professional path.

Most examiners adhere to profession-

al polygraph standards and seek out continuing education. Occasionally, some examiners may have some deviation from the Standards as Best Practices change or mature during a career. I am sure there was some angst as some examiners had to let go of R/I formats. There is also the occasional error in judgement that human beings can stumble on. Fewer still, is the examiner that simply decides to create their own internal set of Standards and Ethics to follow. As a professional organization the APA has a very small set of resources to handle issues with examiners when they choose to deviate.

The most significant consequence the APA can impose on an examiner is to take away the membership of the offending member. In two of the above three examples, this is contrary to what should be best for obtaining compliance. While it may be appropriate to take away membership in some situations, it severs contact with the very organization that has the most potential to correct the offending behavior. Clearly we need to think about what we do, and how we gain compliance with the Best Practices of polygraph.

One solution that I have discussed with others is to more clearly define the Standards that are actually required of exam-

iners. “Shall” and “Should” are not things that are clear in our Bylaws and blur understanding. We should clearly define examiner violations that are of high consequence; things like committing certain felonies such as perjury, or offering to sell the results of a polygraph for a bribe, would bring about severe consequences.

Even this is somewhat of a problem. Why not all felonies, or all criminal convictions, may be proposed by some. I understand this thought, but the lawyers have fits over this. Does criminal convictions also include Driving While Intoxicated, or hunting or fishing criminal violations? The lawyers will tell you, both for the APA and the ones for the people who would sue over this, that the APA would have to prove what the conviction does to limit the ability to do the job. Not so clear now.

However, I believe we could define some short list of significant consequence violations. This would allow the APA to move a whole host of other less serious violations into “Best Practices”. These violations could be corrected with a letter of instruction and would be less problematic for the APA to manage. The Grievance Committee receives an abnormally high ratio of complaints for low priority violations, or things that are business oriented. It is quite com-

mon to receive a complaint of a poorly worded relevant question, or a test that only took 60 minutes, or for an examiner who will not turn over a video of the exam to the examinee. Most of us would agree that this is an issue, but probably not one worthy of a consequence, or the use of the very limited investigative resources the APA has to assign.

There is also reason to suspect some places around the globe where examiners routinely conduct more than five tests in one day. I suppose that the APA could send investigators to inspect books and records to support these violations. It would cost thousands of dollars in travel expense and would be difficult to enforce, but we could identify these offenders. Is that what the Grievance Committee should do for the APA? Interestingly, many of these complaints on testing practices and quality of work come from other examiners in what is I can best describe as business friction. As such it seems more prudent to simply advise examiners to be in compliance when we have that information. I also see polygraph potentially being used improperly for television and reality shows. This issue is very difficult to define and loathed by many examiners, but not by all. Yes I know these potential violations are ones that many of us find improper. The dilemma is what to do about these issues that many would

like to have topped. My gut response is that examiners could be told to stop or their clients advised that these are uses the APA does not support. Education and conversation seem like better solutions to some of the issues.

One proposal I have considered is to have examiners sign an affidavit every year when they renew their license that they are in compliance with APA Standards of Practice. Most of us will avoid signing a false statement as we recognize what that means.

Other examiners find themselves in violation because that is the norm where they are practicing. The “everyone else is doing it” can be an all too common rut. Clearly, a solution is that we should educate non-polygraph community as to what we are limited in doing. You will find that the APA Board recently approved a Standards change from obtaining “consent” from the examinee, to obtaining “informed consent”. This one word change is pretty important. It means the examiner should go a lot further in explaining the procedure to the examinee. We need to carry that concept to include educating your clients, supervisors and the public about polygraph.

The APA has taken those first steps toward educating the public. No longer

do you have to go to any malicious or suspicious websites to find out about polygraph. Refer your clients, bosses or those that are curious to the APA website, where we publish information about accuracy, science and evidence based practices. You will notice that the APA website will be the shining star web source for good polygraph information.

If we are diligent about educating the public, our public perception will improve for the positive. We can all educate the non-polygraph public that it is better to ask fewer relevant questions than more, that there are limits to what can be done in one day, or in one examination, or that good polygraph is not completed in thirty minutes.

My next article will probably be over the events for the Chicago Annual Seminar. I know you are planning to attend, right? Our next seminar will be the first, the last and the only 50th Annual ever in the history of the world for the APA. Really, how could anyone plan to miss it?

I personally promise you the seminar chair, Mike Gougler, is going all out. Seriously, Mike is working himself silly. If he works any harder on this he is going to have to quit his day job. Mike is on the border of crazy for making this the best ever seminar in our history.

This is the one annual seminar that you will not want to miss! If you have ever thought of going, ever planned to go, ever wanted to go, to an APA seminar then this is the one. **DO NOT MISS THIS ONE!** Okay I am running out of exclamations points and capitalized words.

See you in Chicago!!

George H. Baranowski
Director

Interview Observations 101:

“Look For Those Amazing Obvious Signs”

I look back on 45 years of interviewing human beings for a living in a variety of occupations that include, Police Officer, Homicide Detective, Chief Investigator for the Prosecuting Attorney’s Office and Polygraph Examiner, and realize that I’ve observed a variety of common human behaviors, statements and even what I’d call “proclamations,” that quickly raise my suspicion that the individual I’m interviewing may be having a problem with telling the truth. What I’m sharing is not new but it’s what I’m calling a mixed bag of clues that indicate the subject I’m talking with may be having a problem with honesty. Although I do not use these observations to determine deception, (the polygraph examination

takes care of that) I feel that these observations have a role in obtaining material to guide the pre-examination interview process.

Suspicion 1: Watch and listen during the conversation with the person you're interviewing when the issue or issues that's being discussed seems to change, maybe even just a slightly different subject. Does the guy or the gal become happier? Does he or she seem more relaxed, more relieved? They might even smile now, something they didn't do until this change happened. Look at his or her posture, is it more relaxed and less defensive? Or perhaps, they are now more defensive because this went to an even more stressful topic. Though there is no evidence to show this is true, I've also found that more often, the guilty wants the subject changed: The innocent always wants a further exchange of information.

Suspicion 2: Listen for those wonderful words and expressions. Have you ever interviewed someone who seems to start their statement with, "To be perfectly honest": or "To tell you the truth?" The point is that someone who is telling the truth doesn't need to convince you before he gets his words out. Now it's true that some people habitually use these phrases, and that should also be considered. But I have to tell you I've always be tempted

to ask that person who says this something like, "Wait..do you mean that everything else you told me before was a lie?" Or, "Is everything that we're going to talk about after this will be a lie?"

I've always thought that if someone's going to tell you the truth, they wouldn't have to start off by saying just that.

There's other magic words of course, like, "I can't lie to you." Really? How about something that almost sounds like a declaration "I never lie." I've had people say that to me, and it's hard not to laugh when you hear that. I feel that anyone who needs to declare their honesty to this degree, does so because they feel there's no way you're going to be able to find out anything different. I've also always been amused by statements like, "I swear on my mother's grave I'm telling the truth" or "May lightning strike me dead if I'm lying." I don't see where this should be more truthful now because he is swearing on his mother's grave. If she was still alive, she'd probably want to wash his mouth out with soap. In regard to the lightning strike challenge, unless this guy is standing outside in the middle of a lightning storm, chances are pretty slim this is not ever going to happen.

Suspicion 3 Rehearsed statements also raise some pretty solid suspicions. One

of the humorous examples that I witnessed and still talk about, was when I was assisting the prosecutor years ago in a trial, and a witness for the defendant came to the witness stand. The prosecutor asked the witness, “Will you please state your name for the record?” Instead, he replied, “You cannot tell the depth of an anthill by the amount of dirt piled on top.” The prosecutor and I looked at each other and my boss responded, “That’s fine, but what is your name?” He then appeared a little embarrassed and then quickly said “My name is John Blank and I just want you to know that you can’t tell the depth of an anthill by the amount of sand piled on top.” It was obvious that this witness practiced this statement for hours, maybe even in front of a mirror, hoping and maybe even believing that this resounding statement will impact the jury to a favorable verdict for his friend. By the way, it didn’t help.

In another example, if the individual I was interviewing appeared to have many great amount of details of the actual incident under investigation, I have always been surprised when I would ask the subject to tell me what happened “before” this incident occurred. Or better yet, what happened “after” the incident. The detail is often not there anymore. Instead you get scrambling,

stalling and little detail. This is because they rehearsed what they thought they were going to be asked about or rehearsed what they were going to tell me (or make up) about the incident, but didn’t think about expanding the rehearsed account to cover the before and after events.

Suspicion 4: How about those incredible and often amusing early statements made by individuals that you begin interviewing, such as “You’re not going to believe what happened to me!” How many times have we heard that phrase? Common sense tells us that if we want somebody to believe us, you should make your story or explanation as believable as possible. This is usually true but of course not always.

Sometimes the more outrageous a story is, the more believable it becomes. Why? Because we think to ourselves “If this person wanted to lie to me, he’d probably have come up with something a little less far-fetched wouldn’t you think? He might even add something like “Don’t you think that if I was going to lie to you, I’d come up with something a little more believable, you know, you can’t make this stuff up.” When in fact that’s exactly what he or she has done.

Suspicion 5: I call these ‘Time Buying Statements.’ During the interview, the

individual needs to buy some time to come up with an answer to questions he or she might not have been prepared to answer or to review what's going on and to try to come up with a feasible answer to what is being asked. There's actually a myriad of these that I've heard over the years, such as:

"Could you repeat that question?"

"It depends on how you look at it I guess."

"What's your point exactly?"

"Why would you ask me something like that?"

"Who told you that?"

"Where did you hear that?"

"Could you be more specific?"

"Well, this is not as simple as yes or no."

"Oh that's an excellent question. It deserves some thought,"

How about when the individual repeats the question back to you in an attempt at sounding disbelieving. For example, subject repeats, "Did I steal the money out of the safe?...no. Did I shoot Walt Whatshisname?....No"

It's time to close this article and as you know "We could talk about this, these actions and such statements for days and I guess" "It just depends on how you look at it" and "I can't understand why anyone would ask me a question like that" be-

cause "I have tried to be more specific" and as you can see "This is not a simple yes or no situation" and "I've always wanted to know what was the point of all this" or "Why would somebody ask me a question like that?" "But it all depends on how you look at it," because "On the grave of Richard Nixon I'm telling the truth" when I say, "I've never been hit by lightning," and I feel that "This is an excellent question and it deserves some thought."

See you all in Chicago, "and that's the truth".

William L. Fleisher
Director

As I travel the path of life, I am grateful for the truly great opportunity to be in a profession that allows me to help my fellow man almost daily. Sometime ago I penned something I call the Polygraph Examiner's Prayer. Please note this is not meant endorse any particular religious or ideological view. Nor, do I wish to offend non-believers. I only want to share a philosophy of polygraphy that has helped me to do the best job I can.

Polygraph Examiner's Prayer

Thank You for blessing me with the

knowledge to recognize the truth and detect deception;
Always help me to remember that my skills have the power to clear the innocent and capture the guilty;

Strengthen my conviction that each person before me is one of Your children and should always be treated with respect and fairness regardless of the allegations against them;

By Your Grace, allow me to reach inward for the strength and insight with which I have been blessed;

Never let me forget that ours is an honorable and noble profession and that my greatest challenge is not to identify the guilty, but to clear the innocent;

Grant me confidence to have faith in my art, and that under Your watchful eye, the guilty will always reveal themselves;

With these words, I affirm my gratitude to You for Your continued trust in me.

Bless us who seek the truth.

I hope that each of us will remember to be the best that we can be, we must con-

tinue to develop professionally. I hope to see you all at the annual APA Seminar in Chicago, Illinois this September.

Jamie McCloughan
Director

Spring is flying by and summer is just around the corner. For this month's magazine, I thought I would take the opportunity to write a layman's definition for some of the fancy words that are now being used in the polygraph profession and then tie them all together with an example.

Negative Predictive Value = the probability that someone the test called truthful is actually truthful.

Positive Predictive Value = the probability that someone the test called deceptive is really deceptive.

Psychological Set = a made up term that it and its description are not to be used in polygraph.

Sensitivity = the probability that the test will declare a deceptive person deceptive.

Specificity = the probability that the test will declare a truth teller truthful.

To tie these terms together, I am going to use the previously mentioned terms

in the context of testifying about a polygraph examination.

Prosecutor: Could you explain the accuracy of the polygraph examination you conducted on the defendant?

You: Well, yes, but accuracy can be reported in many different forms. It is best to describe it, as scientists do, by reporting what the test's sensitivity, specificity, positive and negative predictive values are, because that gives an overall view of the accuracy.

Prosecutor: Could you explain what sensitivity, specificity, positive and negative predictive value mean?

You: Yes. Sensitivity means how well the test detects deception when it is present. Specificity is how well a test eliminates deception when it isn't present. Positive predictive value is the chance that someone the test called deceptive is in fact deceptive. Negative predictive value is the chance that someone that test eliminated as being deceptive is in fact not being deceptive, in other words they are truthful.

Prosecutor: Okay. What is sensitivity, specificity, positive and negative predictive values for this polygraph?

You: First, it is important to be clear that

a polygraph is the instrument and its components. There are many different test techniques or formats that are used with the polygraph instrument. The numbers for these different areas varies based on the test technique or format that was used to conduct the test. In this case, I used the three question Utah Approach to the Comparison question testing with Utah Scoring. The sensitivity for this technique is approximately 85 percent. The specificity is approximately 81 percent. The positive predictive value is approximately 92 percent. The negative predictive value is approximately 94 percent.

The above example is intended only to bring all of the terms together. Obviously we would have to discuss other terms, such as reliability, if we were testifying about accuracy.

In closing, may those who are fighting for our freedom against threats, both foreign and domestic, be safe, and have Godspeed in their return to friends and loved ones.

RETIREMENT ANNOUNCEMENT



Happy
Retirement!

- APA member **William Norris**, Director of the National Center for Credibility Assessment (NCCA) will retire in August 2015 after 25 years of federal service. He first joined the APA in 1980.
- Past APA President and former Editor **Donald Krapohl**, NCCA Deputy Director, will also retire with 35 years of government service. He joined the APA in 1979.

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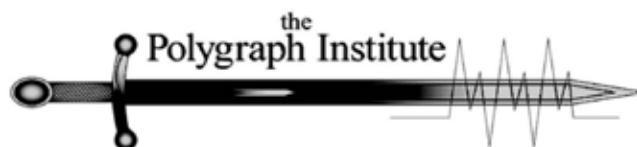
- ◆ Feb 9 -13
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Practicum

Advances are made by answering questions
Discoveries are made by questioning answers

Mental Reservation When lying is permissible?

Tuvya T. Amsel

The pretest reached the question formulation phase. While discussing the comparison question the examinee, a fresh graduate of a Jesuit Seminary of Theology, was asked: “Have you ever lied in your life?”, “Never” came the answer with eye contact avoidance and hesitation. The examiner with somewhat teasingly tone responded to that: “Never, ever, even not as a child?”. “Well... define lie” came the answer with an inaudible and unclear murmur. “What was that?” asked the examiner but the answer never came. The pattern of breaking eye contact along with physical uneasiness and

excessive body movement, sneaky and indirect answers followed by an inaudible and unclear murmur continued all along the comparison questions discussion¹. It seemed like the examinee tries to overcome and fight his inner conflict in where in one hand he should tell the truth while on the other hand to maintain a respectful and honest façade. The inner conflict itself was not exceptional; examiners face it daily, but rather the avoidance patterns which were consistent and seemed like

¹ It seems like this examinee never read the large body of research rejecting those cues as being indicative of deception.

The author is a private examiner in Israel, and a regular contributor to the publications of the American Polygraph Association. The views expressed in this column are solely those of the author, and do not necessarily represent those of the American Polygraph Association. Publishable comments and replies regarding this column can be sent to editor@polygraph.org.

some kind of a systematic training, a type of a mental counter measure....And indeed it was.

“Mentalis Restricti” (Mental Restriction a.k.a Mental Reservation)

The ninth verse of the Ten Commandments^{II} “Thou shalt not bear false witness against thy neighbor” is one of the fundamental directives in the Judeo-Christian morale code. Lying is forbidden and according to the Catholic teaching it is considered as an evil. And evil cannot even be exercised in order to save human. Yet, there are some unique situations or as Slater^{III} (1911) explains:

“... However, we are also under an obligation to keep secrets faithfully, and sometimes the easiest way of fulfilling that duty is to say what is false, or to tell a lie. Writers of all creeds ..., both ancient and modern, have frankly accepted this position. They admit the doctrine of the lie of necessity, and maintain that when there is a conflict between justice and veracity it is justice that should prevail...”

To resolve the conflict the common Catholic teaching established the doc-

trine of mental reservation as a mean in where “...both justice and veracity can be satisfied....”^{IV}

The doctrine was first introduced in 1235 by St. Raymund of Pennafort, a Spaniard professor of Cannon Law when Raymond published the Summa Casuum of which several editions appeared in the sixteenth and seventeenth centuries^V.

“... I believe, as at present advised, that when one is asked by murderers bent on taking the life of someone hiding in the house whether he is in, no answer should be given; and if this betrays him, his death will be imputable to the murderers, not to the other’s silence. Or he may use an equivocal expression, and say ‘He is not at home,’ or something like that. And this can be defended by a great number of instances found in the Old Testament. Or he may say simply that he is not there, and if his conscience tells him that he ought to say that, then he will not speak against his conscience, nor will he sin ...”

“... Such expressions as “He is not at home” were called equivocations, or amphibologies, and when there was good reason for using them

II Exodus 20:16, The Holy Bible, English Standard Version, Crossway Bibles, Ministry of Good News Publishers (2001).

III Slater, T. (1911). Mental Reservation. In The Catholic Encyclopedia. New York: Robert Appleton Company. Retrieved April 3, 2015 from New Advent: <http://www.newadvent.org/cathen/10195b.htm>

IV Ibid, Slater (1911)

V O’Kane, M. (1911). St. Raymond of Peñafort. In The Catholic Encyclopedia. New York: Robert Appleton Company. Retrieved April 12, 2015 from New Advent: <http://www.newadvent.org/cathen/12671c.htm>

their lawfulness was admitted by all. If the person inquired for was really at home, but did not wish to see the visitor, the meaning of the phrase “He is not at home” was restricted by the mind of the speaker to this sense, “He is not at home for you, or to see you.” Hence equivocations and amphibologies came to be called mental restrictions or reservations. It was commonly admitted that an equivocal expression need not necessarily be used when the words of the speaker receive a special meaning from the circumstances in which he is placed, or from the position which he holds. Thus, if a confessor is asked about sins made known to him in confession, he should answer “I do not know,” and such words as those when used by a priest mean “I do not know apart from confession,” or “I do not know as man,” or “I have no knowledge of the matter which I can communicate...”^{VI}

The doctrine of strict mental reservation (*stricte mentalis*)

In the sixteenth century mental reservation doctrine mounted into its next stage when Martin Aspilcueta (a.k.a “Doctor Navarrus,”) another Spaniard professor of Cannon Law coined the strict mental reservation doctrine when consulted whether a statement given by a person to a woman “I take thee for my wife”



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without the intention of marrying her and later denying saying it in court is considered to be a lie or perjury or a sin? Navarrus answered that the man neither lied, nor committed perjury, nor any sin whatever, on the supposition that he had a good reason for answering as he did^{VII}. Navarrus held that mental reservation involved truths “expressed partly in speech and partly in the mind,” relying upon the idea that God hears what is in one’s mind while human beings hear only what one speaks. Therefore the Christian’s moral duty was to tell the truth to God. Reserving some of that truth from the ears of human hearers was moral if it served a greater good. A user of the doctrine could reply “I know not” aloud to a human and “to tell you” silently to God, and still be telling the truth.

Modern implementation

^{VI} Ibid, Slater (1911)

^{VII} Ibid, Slater (1911)

In spite of the fact that the concept of mental reservation has never been included in Canon Law nor was it officially approved by the Catholic Church authority it has been debated in years past by the scholars of the law and of moral theology^{VIII}. However it seems that the practical implementation of the doctrine is still practiced. According to the Irish Government “Commission to Inquire into Child Abuse^{IX}” (a.k.a The Ryan Report) published in 2009 the Roman Catholic archbishops in Dublin obsessively covered up widespread sexual abuse of children by priests until the mid-1990s. One priest admitted abusing more than 100 children. Another said he had abused children every two weeks for more than 25 years. All archbishops in charge over the 1975-2004 period covered by the inquiry were aware of some complaints and the archdiocese was pre-occupied with protecting the reputation of the Church over and above protecting children’s welfare. It said the Church was “obsessively” concerned with secrecy and operated a policy of “don’t ask, don’t tell” about abuse. Cardinal Desmond Connell the former Archbishop of Dublin and the Primate of Ireland, who made misleading statements in connection with clerical sex abuse is quoted of saying “...There may be circumstances in which you can use

an ambiguous expression realizing that the person who you are talking to will accept an untrue version of whatever it may be...”^X

For the sake of equality the view on lying of the other two monotheistic religions should be described as well:

In addition to the ninth commandments, the Old Testament (Torah) guide that “Thou shall not steal, thou shall not deny falsely, and thou shall not lie one to another”^{XI} and “Distance yourself from a false matter”^{XII}. Yet, in the Talmud which is a collection of Jewish law and tradition as interpreted by ancient scholars, there are several circumstances where one is permitted or sometimes required to lie^{XIII}:

- Lying to preserve the cause of peace, not to hurt another person’s feelings, or to provide comfort.
- Lying in a situation where honesty might cause oneself or another person harm.
- Lying for the sake of modesty or in or-

X Roddy, M., In abuse by Irish priests, a little “mental reservation”, Reuters US Edition, <http://blogs.reuters.com/faithworld/2009/11/29/in-abuse-by-irish-priests-a-little-mental-reservation/>

XI Ibid, the Holy Bible, Leviticus 19:11

XII Ibid, The Holy Bible, Exodus 23:7

XIII Friedman, H.H., & Weisel, A.C, (2003), Should Moral Individuals Ever Lie? Insights from Jewish Law, Jewish Law Articles, http://www.jlaw.com/Articles/hf_LyingPermissible.html

VIII Doyle, T.P, (2006), The Doctrine of mental Reservation, www.awrsipe.com/Doyle/2006/2006-11-19-Doyle-Mental_reservation.pdf

IX Commission to Inquire into Child Abuse, www.childabusecommission.com/rpt/

der not to appear arrogant.

- Lying for the sake of decency, i.e., not telling the truth about intimate matters.
- Lying to protect one's property from scoundrels.

Following the Jewish and Christian footsteps, Islam takes a similar stand. While the Quran prohibit the followers of lying: "...And do not conceal testimony, for whoever conceals it – his heart is indeed sinful..."^{XIV} and "And do not mix the truth with falsehood or conceal the truth while you know [it]."^{XV} However, the Hadith which is a collection of teaching attributed to Muhammad one may choose not to tell the truth when^{XVI}:

- A Muslim's life is in danger if he speaks the truth to a non-believer.
- To promote harmony between spouses.
- While making peace between two quarrelling Muslim parties, so that it would not escalate into something worse the mediator in such case may falsely speak.

XIV Quran 2:283, <http://quran.com/2>

XV Ibid, Quran 2:42,

XVI Sahih Muslim, Chapter 25: Forbiddance of telling a lie and the cases in which telling of lie is permissible, Book 032, Number 6303: http://d1.islamhouse.com/data/en/ih_books/single/en_Sahih_Muslim.pdf

- To make the unbelievers realize the truth of Islam.

The potential risk

Polygraph examiners meet on a daily basis examinees which belong to one of these dominations, nevertheless if the examinee is orthodox or secular the prohibition to lie along with the permission to lie is part of her/his heritage which are well rooted into her/his DNA, which in return means that in some instances the examinee will have no remorse upon lying. Will that affect her/his psychophysiological responses and reduce them? The leading theories which explain the responses disregard guilt or remorse as an influencing factor in the psychophysiological arousal process but some researcher theorize that guilt does produce deception cues. Ekman and Frank (1993)^{XVII} "Deception Guilt" refer to the guilty feelings of the liar either because of the act committed or by the act of denying it or both. The "Deception Guilt" can produce very mild to strong deception cues^{XVIII}. So in those instances in where the examinee is convinced by the necessity of lying as grounded in her/his domination we may face a non-responsive examinee. Such should be defined as a mental countermeasure and managed by the examiner as such.

XVII Ekman, P., & Frank, M.G., (1993), "Lies That Fail," in *Lying and Deception in Everyday Life*, New York, NY: Guilford Press; US, 190.

XVIII Ibid, Ekman & Frank, 191.

sponses to the test stimuli. In a diagnostic test of a guilty subject, the responses to different but related questions are not independent, but are dependent. This works in favor of the polygraph in that the dependency moves the aggregate score away from the pattern of scores for innocent subjects in a predictable direction.

Screening tests are those tests that are conducted in the absence of any known problem, but to screen for relevant risks. In a medical setting, one may screen individuals who are asymptomatic but have traveled to a disease area. The goal of screening is to identify persons where risks may be present. A key objective of a screening test is high sensitivity, to identify individuals of risk with high probability. The other key objective is to have high specificity, to identify individuals with low or no risk with high probability.

Diagnostic polygraph tests are conducted in the context of investigation of a known or alleged incident, for which the attribute may be Deception or Knowledge. In this case, the polygraph exam is a binary classification test. We do not consider Inconclusive as an attribute or classification, but restrict ourselves to the binary case. Diagnostic polygraphs, because they are conducted in response to a known problem that requires action or intervention, should always be conducted as single issue polygraphs – the target questions attempt to describe different but related aspects of a known problem. Single issue polygraph techniques can also be used to conduct screening polygraphs in the absence of any known problem or known allegation.

Screening polygraph tests are those polygraphs conducted in the absence of any known or alleged incident. Target issue for screening tests may differ substantially based on the type of screening program, whether government information/operational security, law-enforcement applicant selection, or post-conviction supervision of offenders. Effective polygraph screening targets will ideally have clear actuarial and operational relevance in the risk management context.

Multiple-issue polygraph tests are used in polygraph screening programs. Use of multiple issue exams in the screening context would seem to increase screening test sensitivity to a broader range of potential problems because the subject will be asked questions about a number of different issues, possibly unrelated. The bi-

nary attribute of Deception (or Knowledge) may be independent for multiple issue exams because Guilty subjects may be innocent on some issues but not on others. However, subject responses will always have a shared source of variance because a subject's attention and responses can become loaded onto one or more questions and not others. Responses to multiple issue polygraphs are not completely independent and are therefore dependent. This leads to the need for thoughtful policies regarding the scoring and interpretation of multiple issue tests.

Decision rules for diagnostic exams have been consistently shown in the scientific literature to provide the highest classification accuracy rates when they make use of grand-total scores, with no assumptions about independence of responses. For example, when the relevant stimuli are intended to describe different aspects of a known or alleged incident. Sub-total scores have never been shown to outperform that of grand total scores, though subtotal scores have been shown to be somewhat effective when grand total scores are not statistically significant.

Decision rules for multiple-issue screening exams have traditionally emphasized the use of sub-total scores because the criterion states of the target issues are assumed to be independent. However, responses to test questions may or may not be independent because strong responses to some target questions may reduce responses to other target questions. The simple solution to this problem has been to refrain from making truthful and deceptive classifications within the same exam. Procedurally, this has resulted in an any-or-all subtotal scoring rubric wherein any subtotal score that is statistically significant for deception would prohibit any conclusion of truth-telling to other questions in the same exam, and where examinees can be classified as truthful only when all subtotal scores are statistically significant for truth-telling.

Single issue vs. multiple issue scoring. Use of an aggregate score to classify a subject as deceptive or truthful, the aggregate score may result in a loss of sensitivity if the subject is truthful to most, but not all, issues. The issues for which the subject is deceptive pulls the aggregate score towards a deceptive classification, while the issues for which the subject is truthful pulls the aggregate score towards a truthful classification. Test sensitivity is an important goal of all screening programs. Attempts to compensate for the loss of sensitivity by scoring the individual target

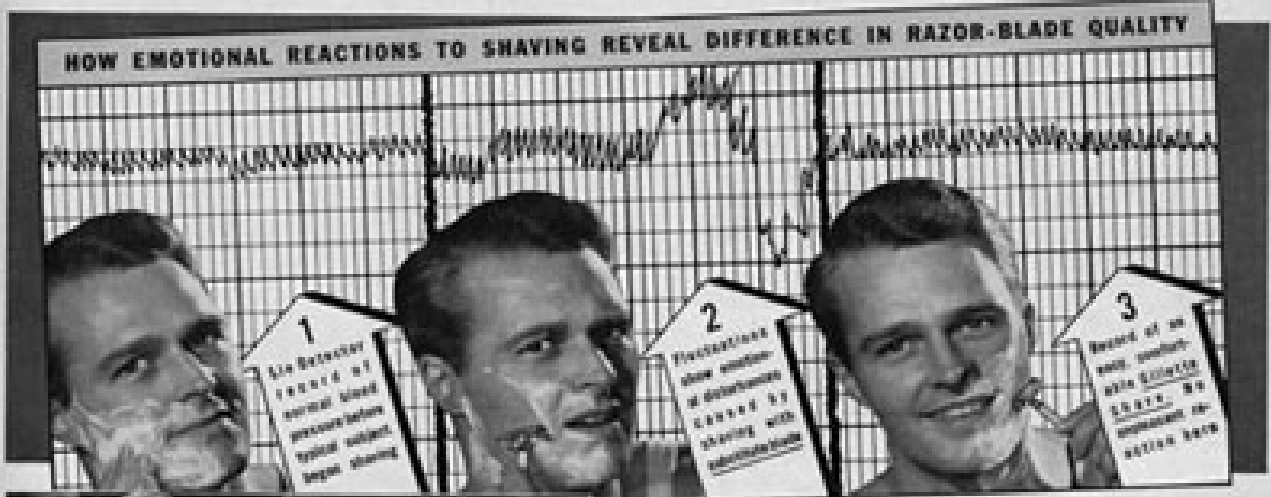
issues may increase sensitivity for certain parts of the exam, but test specificity may suffer in that innocent subjects are really being tested multiple times and the probability of being classified as deceptive increases with the number of different individual issues tested. Test specificity is also important where large numbers of individuals are screened, which may result in a large number of false positives that will require additional testing or administrative action to resolve. The use of successive hurdles testing practices may help to reduce the potential for some screening errors. However, it is important to recognize that additional polygraph testing falls short of the requirement that the successive hurdles strategy rely on different methodologies with different assumed vulnerabilities to testing problems and error.

Multiplicity. Decision rules that make use of multiple subtotal scores are at risk for contributing to inflated error rates and potentially reduced test accuracy, necessitating the use of common statistical corrections when decisions are based on multiple statistical comparisons.

These effects are referred to generally as multiplicity effects, and include the potential for inflated alpha (inflated false positive errors) when using multiple subtotal scores to make deceptive classification, and the potential for deflated alpha (inflated inconclusive results that are not statistically significant) when requiring multiple statistically significant truthful scores to achieve a truthful classification. Multiplicity effects can be managed through the calculation of subtotal cut scores using simple statistical corrections, such as the Bonferroni and Šidák corrections, but that will have to be the subject of another paper.

NOW! LIE DETECTOR

CHARTS EMOTIONAL EFFECTS OF SHAVING!



HOW FAMOUS LIE DETECTOR CHECKS SHAVING RESULTS IN EXHAUSTIVE RESEARCH. Strapped to Lie Detectors, men shave one side of the face with a Gillette Blade . . . the other side with a blade of different manufacture . . . not knowing which is which. Comparative blade quality, as revealed by their involuntary reactions, is accurately recorded on charts like the one above—leaving no doubt as to which blade is best. Finally, each shaver is asked which of the two blades he has used (No. 1 or No. 2) he considers best. In practically every instance the subject's expressed preference tallies exactly with the Lie Detector's findings.



HOW USE FOR YOURSELF when the critical eye of the camera pinpoints. Above left? In shaving a system of a man's face shaved with a Gillette Blade in a Gillette Razor, (right) the same area shaved by another method, another day. Never decide which, unless the close, close, long-remember shave you want.



GILLETTE'S NEW BRUSHLESS SHAVING CREAM is better in five ways! (1) Includes whiskers, so double quick, (2) soothes the skin, (3) never stings, (4) speeds shaving and (5) never clogs, never so thick, (6) like Gillette Smoothies. Big tube, 2 1/2

Outstanding Superiority of Gillette Blade Proved Beyond Shadow of Doubt in Astonishing Series of Scientific Tests

ONLY those who dare to know the truth willingly submit to Dr. William M. Marston's Lie Detector test . . . for the Lie Detector reveals the facts. That's why Gillette engaged this eminent psychologist to make a scientific investigation of razor-blade quality. Here are his findings:

(1) Today's Gillette Blade gives more comfortable shaves than any other blade tested. (2) For faster shaves . . . positive proof that it is easier on your face. (3) More refreshing shaves . . . free from emotional irritations that may stay your day off wrong!

Hundreds of Men Take Test

By recording breathing and blood pressure, the Lie Detector charts the emotional reactions produced by shaving. Hundreds of men have taken part in Dr. Marston's research. Thus far, blades of 16 substitute brands have faced trial in comparison to the Gillette Blade. In one case after another the shaver's

involuntary reactions, as automatically recorded by the Lie Detector, prove Gillette's outstanding superiority. And what's equally important and significant, the vast majority of subjects, not knowing which blade is which, choose Gillette as being by far the best-shaving blade.

Make Your Own Test

Enjoy the benefits of this scientific research yourself! Try today's Gillette Blade. You'll agree that they are much finer—for more uniform—and well worth the few cents extra you pay for them!

ATTENTIVE CONSUMER ORGANIZATIONS AND MEN EVERYWHERE

Dr. William Marston Marston's scientific shaving test will bring conviction to even the most hard-core blade quality. Gillette makes equipment arrangements and holds trials in almost every metropolitan area. For more details, address your requests to Gillette Safety Razor Company, Boston, Mass.

DO YOU FOOL YOURSELF ABOUT RAZOR-BLADE QUALITY?

Some Men Do, Says Dr. Marston

"Some men have used dull or unsafe blades on their faces for an extended period. I have had such men shave with Gillette Blades every day for a week. At the end of that time they could no longer endure their former shavers . . . for their reactions had returned to normal. "The quality of a man's shave has marked effect on his mood and general attitude for hours. For this reason, I cannot too strongly emphasize the importance of using the best blades obtainable. My study enables me to state that the Gillette Blades are far superior in every respect to competitive blades tested."



Gillette Blades



PRECISION-MADE TO FIT YOUR GILLETTE RAZOR EXACTLY

William Moulton Marston (1893-1947) appeared in Life magazine advertisements hawking polygraph confirmation of the superiority of Gillette shaving blades.

Courtesy of www.kenalder.com. The image is believed to be subject to fair use.



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by John Galiano

Canada, a country consisting of ten provinces and three territories, is located in the northern part of the continent of North America. With its population of approximately 35 million, it is the second largest country on earth, covering almost 10 million square kilometers. Three oceans line Canada's frontier: the Pacific Ocean in the west, the Atlantic Ocean in the east, and the Arctic Ocean to the north. Along the southern edge of Canada lies the Canadian—United States boundary, which forms the world's longest land border. Canada is crossed by the Rocky Mountains and home to vast swaths of protected wilderness.

Canada is a parliamentary democracy. Stephen Joseph Harper is the current Prime Minister of Canada and the Leader of the Conservative Party. He was sworn in as Canada's 22nd Prime Minister on 06 February 2006.

Canada has two official languages: English and French.



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BRIEF HISTORY OF POLYGRAPHY IN CANADA

Dr Leonarde Keeler first introduced Polygraphy in Canada in 1938 when he presented a paper on the polygraph technique to the International Association of Chiefs of Police. It was not until 1963, however, that Canadian law enforcement agencies began utilizing the polygraph in criminal investigations.



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The first polygraph examination in Canada was conducted by an officer of the Royal Canadian Mounted Police (RCMP), utilizing a Keeler instrument consisting of one pneumograph, an electrodermal (GSR) and cardiograph component. Similar instruments were also used by the Calgary Police Service (CPS), as well as other Canadian municipal police forces. Due to the tremendous success of the Calgary Police Service, the RCMP and other police agencies around the country began building polygraph divisions of their own.

Between 1965 and 1979, the RCMP, the Sûreté du Québec (Québec Provincial Police) and several municipal police

departments began to have members of their respective forces trained as polygraph examiners. These prospective examiners received their training in New York, Chicago, or Michigan.

Throughout the years 1971-1975, the RCMP sponsored annual conferences, which included police polygraphists from all regions of the country. It was during these early conferences that the examiners began to talk about an association. In March 1976, permission was sought and received to form the Canadian Association of Police Polygraphists (CAPP). Sgt Larry Proke, from the RCMP Pacific Region, was elected as its first president.

In 1976, the Sûreté du Québec (Qué-

bec Provincial Police) had its first polygraph examiner trained at the Keeler Polygraph Institute, in Chicago.

In its 1976 Annual Report, the Canadian Association of Police Polygraphists put forth motions that preliminary discussions would be held at the Canadian Police College (CPC) for the purpose of determining the possibility of establishing Canada's first polygraph school. At the CAPP 1977 seminar, the Curriculum Committee was formed to meet with officials of the Canadian Police College for the purpose of exploring the feasibility of having the CPC conduct a polygraph school. If the CPC accepted CAPP's proposal, it would standardize polygraph training across Canada and eliminate having to send prospective examiners to the United States for their training.

In 1979, Canada's first and only polygraph school was established - the Canadian Police College Polygraph Training School, located in Ottawa, Ontario.

CANADIAN ASSOCIATION OF POLICE POLYGRAPHISTS (CAPP)



In 1976, the newly formed Canadian Association of Police Polygraphists consisted of 22 members. At the an-

nual conference held in Vancouver of that same year, four committees were formed: Membership; Education and Research; Ways and Means; and Judicial.

Today, CAPP has approximately 200 members originating from Canada, the United States, the Caribbean, and some European countries. It has a total of eight committees, which include: Membership; Professional Standards & Ethics; By-Laws and Regulations; Legislative; Seminar; Research & Instrumentation; Polygraph Training & Evaluation; and Pre-Employment Testing.

CAPP includes polygraph examiners from law enforcement agencies, government organizations, and the private sector. Most major municipal police departments throughout Canada have their own Polygraph Division.

CAPP is divided into seven regions: 1) Atlantic; 2) Ontario-Québec; 3) Manitoba-Saskatchewan; 4) Alberta-BC (British Columbia); 5) United States; 6) Caribbean (CARICOM); and 7) Europe. Its current president is Sgt Greg Vardy of the Truth Verification Section of the Royal Canadian Mounted Police, in Dartmouth, Nova Scotia.

CANADIAN POLICE COLLEGE (CPC)



The Canadian Police College (CPC), situated in Ottawa, Ontario, was established in 1976 for the purposes of advanced and specialized education, as well as executive education for the policing community in Canada. It is led and managed by the Royal Canadian Mounted Police and is the center of excellence in many law enforcement areas. All persons from municipal and provincial law enforcement agencies, federal organizations, and First Nations Policing are welcome, as well as international students.

LEGAL ADMISSIBILITY OF POLYGRAPH EXAMINATIONS IN CANADA

SUPREME COURT OF CANADA

Case in point: *R. v. Béland and Phillips*, [1987] 2 S.C.R. 398 Docket: 18856

Under the CANADA EVIDENCE ACT (R.S. 1985, C. C-5), the polygraph examination and its result are not receivable as evidence in Canada's criminal

judicial system. This statement of law was delivered by the former Honorable Mr Justice William Rogers McIntyre on behalf of the Supreme Court of Canada in *R. v. Béland and Phillips*, [1987] 2 S.C.R. 398 Docket: 18856.

The federal courts in Canada hold that the result of a polygraph examination is an opinion put forth by a polygraph examiner. The examiner's opinion is based on his or her evaluation of physiological data that was collected, measured, and recorded on a polygraph instrument. Canada's federal courts hold that evidence of this type, although a valuable tool in the investigative process, should not supersede the role of the judge and jury to decide the credibility of a witness. Trial by judge and jury has long been the cornerstone of Canada's criminal judicial system.

COMMON LAW RULE FOR CONFESSIONS

Although polygraph evidence is not admissible in Canadian criminal courts, a polygraph examiner may provide testimony in a case where a confession has been obtained. A confession given during the course of a polygraph examination is considered to be voluntary and admissible as long as the Rules of Evidence have been respected.

Case in point: *R. v. Oickle*, 2000 SCC

During the police investigation into a series of eight fires, the suspect Richard Floyd Oickle agreed to submit to a polygraph examination. At the conclusion of the test, the police officer informed the suspect that he had failed it. During a lengthy and skillful interrogation that followed, Oickle confessed to arson.

During a *Voir Dire* hearing, the trial judge ruled that the suspect's statements were voluntary and admissible, and convicted Richard Floyd Oickle on all counts. The Court of Appeal for Nova Scotia disagreed with the ruling of the trial judge and entered an acquittal on Oickle's behalf.

The Crown then called upon the Supreme Court of Canada to rule on the voluntariness of Richard Floyd Oickle's confession. Had the polygraph created an oppressive atmosphere for the suspect? Had the police improperly induced Oickle's confession in any way?

On 29 September 2000, the judgment of the Supreme Court of Canada was delivered by the Honorable Mr Justice Frank Iacobucci. In its judgment, the Court ruled that Richard Floyd Oickle's confession was given voluntarily, the initial findings of the trial judge were upheld, and the conviction was restored.

CIVIL AND LABOUR COURTS

Under provincial Evidence Acts, the result of a polygraph examination may be admissible in evidence in civil or in labour court. Across Canada, judges presiding over these courts have adopted varying views regarding the admissibility of polygraph evidence in a judicial proceeding, these ranging from its acceptance to its partial acceptance to its non-acceptance. Some judges believe that the statement of law delivered by the former Honorable Mr Justice William Rogers McIntyre in *R. v. Béland and Phillips* applies not only to criminal matters, but to civil and labour ones as well. Other judges believe that any evidence of witness credibility - if probative and relevant - should be admitted in a judicial proceeding, including polygraph evidence.

COURT OF APPEAL OF QUÉBEC

Case in point: *Hotel Central Victoria-ville Inc. v. Reliance Insurance Company, Court of Appeal of Québec, REJB 1998-06721*

Mr Justice Jacques Philippon wrote:

[Translation] A distinction must be made between the requirements of the criminal court and the civil court for the admissibility of proof that has been obtained by polygraph.

Mr Justice Philippon stated that certain rules of evidence must be respected. The validity of the fundamental principle of the polygraph technique must be established. The capacity of the polygraph instrument must be evaluated, as well as the method followed by the polygraph examiner in the case concerned.

Case in point: Lamothe v. General Accident Insurance Company, Court of Québec, REJB 1998-10865

The Honorable Mr Justice Robert held that the opinion of the polygraph examiner was admissible when he stated:

[Translation] Proof that has been obtained following a polygraph examination constitutes an innovative, scientific technique that is admissible in evidence.

SUPERIOR COURT OF QUÉBEC

There have been some unfavourable decisions regarding the admissibility of polygraph evidence in civil court.

Case in point: *Vêtements Paul Allaire Inc. v. Citadelle General Insurance Company*, Superior Court of Québec, REJB 2000-19632

In order to make a decision as to the

probative value of polygraph evidence, Judge Pierre Dalphond ruled that the premise of the polygraph must be supported by scientific and medical evidence that showed that a person who is untruthful manifests certain physiological reactions that are measurable by a polygraph examination. These reactions would be different from those of a truthful person, even one influenced by stress or any other factor. In this case, Judge Pierre Dalphond held that no scientific and medical proof had been presented to support the premise of the polygraph.

Case in point: *G. Latouche (Transport G.L.) v. Promutuel Bellechasse General Insurance Company*, Superior Court of Québec, REJB 2003 1457

Judge Normand Gosselin held that, even if the Superior Court of Québec refuses to acknowledge the admissibility of polygraph evidence as no scientific and/or medical proof establishes the premise that a person who lies manifests certain physiological reactions that are measurable by a polygraph examination, the answers given by the subject during the polygraph examination are admissible for comparison purposes with his or her other statements.

QUÉBEC LABOUR COURT

Case in point: *Fraternité des policiers*

et policières de Longueuil inc. v. Ville de Longueuil, Québec Labour Court, D.T.E. 2001 T-534

Arbitrator Pierre Descoteaux admitted the polygraph opinion in its entirety, concluding that the Labour Union had proven the validity of polygraph examinations and the results obtained.

THE EMPLOYMENT STANDARDS ACT, 2000 (ESA) OF ONTARIO

The province of Ontario imposes certain restrictions on the use of polygraph examinations.

BY EMPLOYERS

The Employment Standards Act, 2000 (ESA) holds that it is against the law for an employer, or anyone on behalf of an employer, to directly or indirectly require, request, enable or influence an employee to take a polygraph examination. An employee has the right not to be asked to take a polygraph examination, not to be required to take a polygraph examination, and not to take a polygraph examination.

BY POLICE

Nothing in the ESA prevents a person from being asked by a police officer to take a polygraph examination or from taking a polygraph examination if it is administered by a member of a police

force in Ontario in the course of the investigation of an offence.

CANADIAN SECURITY INTELLIGENCE SERVICE (CSIS)

CSIS, Canada's primary national intelligence service, uses the polygraph in the performance of its mandate to protect Canada's national security interests.

CONCLUSION

Polygraph testing is currently being used in more than 50 countries around the world in the fields of criminal investigations, corrections, intelligence, counterintelligence, and civil and labour matters. In Canada, all federal, provincial, and municipal law enforcement agencies employ polygraph examiners or use the services of examiners in other agencies. Law enforcement agencies that use the polygraph do so predicated on the basis that it is an extremely valuable tool in the investigative process.

COMMON PITFALLS IN CALCULATING DECISION ACCURACY

WITH FIELD CASES

Donald J. Krapohl¹

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What does “validity creep” mean? Hint: it does not refer to an obnoxious researcher. You probably won’t find a definition in the dictionary, so let me offer one of my own. “Validity creep” is an expression one can use to describe an effect that has repeatedly appeared in the polygraph research literature when calculations of decision accuracy are based on field cases. The “validity” part refers to what the studies are trying to estimate, and “creep” goes to factors that tend to boost those estimates, little by little, in a positive direction. There are little things that can push those cal-

culations more and more toward very high numbers. The net effect can be an over-estimate of the accuracy for a given polygraph technique. A cursory look at research originating from examiners using their own field cases will show what I mean. They have accuracies clustered well above what other researchers have reported, and it is almost certainly the product of validity creep. Here is a general outline of how validity creep works.

First, the fundamentals. To test for the accuracy of polygraph decisions, one needs both polygraph decisions and

¹ Mr. Krapohl is an APA Past President, and coauthor of the forthcoming polygraph textbook by Elsevier Publishing, *Fundamentals of Polygraph Practice*, due in the fall of 2015. The views expressed in this article are solely those of the author, and do not necessarily represent those of the Department of Defense or US Government. Comments can be directed to apakrapohl@gmail.com.

ground truth. When decisions and ground truth agree a lot, there is high accuracy, and when they don't, low accuracy. Pretty straightforward.

How does one get ground truth to compare to polygraph decisions, then? In lab research this is pretty easy because ground truth is assigned by the researcher. In the field the garnering of ground truth is far more difficult, and most would agree it is probably impossible to do perfectly.

It is helpful to keep in mind that if ground truth were already available in the field, investigators wouldn't need polygraphers to find it. There would be little need to schedule a test in such instances, so polygraph decisions are much less available to compare against ground truth in those cases. Ground truth can be discovered by way of the polygraph, but as we will see, this can create a selection bias in the sample used in field research.

What do we mean by "ground truth?" "Truth" is a slippery concept, one that even philosophers haven't really nailed down, but for the concrete thinkers among us let us just accept that "ground truth" in polygraph research is when compelling evidence of guilt or innocence is found separate from the polygraph results. For example, the stolen loot is discovered in

the home of the suspect. Or, photo or video images show the suspect committing the crime. Or, the suspect's fingerprint is found somewhere an innocent person's fingerprint ought not to be. Or, there's DNA evidence at the crime scene that inculpates or exculpates the examinee. Or, the suspect confesses for reasons unrelated to the polygraph results, inculpating himself, and exculpating someone else.

As stated earlier, when compelling inculpatory evidence is found in criminal investigations, it tends to resolve the case before the polygraph is brought to bear. Polygraph examiners aren't really needed to identify the culprit when there is clear evidence of who committed the crime, so it follows that examiners don't get involved very often when ground truth is available a priori. Examiners are normally called into cases under one of three sets of conditions: (1) the investigation is stymied and investigators are resorting to the polygraph because there is insufficient evidence to point out which suspect is the bad guy; (2) the investigation is stymied but investigators believe they have the bad guy and are looking for a confession, or; (3) in a small number of cases investigators are just looking for a confession for leverage where they already have all of the evidence needed to convict. In all three instances it is unlikely new ev-

idence will appear except in cases of confession. Because of the way investigations unfold, polygraph examiners are exposed to a filtered set of cases for which disconfirming evidence is very unlikely to be uncovered after the polygraph results are in: it will be either a confession confirming the results, or nothing. Probably none of us has ever encountered an “exculpatory confession” following a polygraph exam, if such a thing is even possible. Either examinees confess to the crime, thereby providing confirmation of guilt, or they don’t confess, thus providing nothing either way. This is an important factor for validity creep: confirmation goes only one way.

The next step is what the polygraph examiner does at the end of an examination. Polygraph examiners typically conduct interrogations of examinees who fail their exams. Interrogations produce confessions, but because interrogations are a consequence of polygraph results, not everyone is interrogated. If the results are Deception Indicated (DI), the examiner will interrogate. When they are No Deception Indicted (NDI), there is no interrogation. When a deceptive person passes the test with an NDI result, there would be no interrogation, no confession, and likely no evidence that the examiner made the wrong decision. Conversely, if a truthful person

fails the test, there is an interrogation; however, truthful examinees tend not to confess. This leaves nothing against which to compare the polygraph results, and this type of error also is hard to discover. What are left are primarily confession-confirmed exams, and possibly a minority of truthful examinees in which the identification of the guilty party exculpates them. From these type cases field samples are drawn for research. The accuracy of the polygraph with this kind of sample would be biased, and the boost in decision accuracy corresponds with the strength of the validity creep. More bias, more validity creep, higher decision accuracy. Just look at research reports of field examiners looking at their own cases to see how deeply validity creep has imbedded itself. All of these studies show decision accuracy approaching 100%.

It gets better. Sometimes validity creep can also be the product of how decision accuracy is calculated. Let’s start with a hypothetical example to conduct a thought experiment. Suppose Examiner X conducted 1,000 cases. DI decisions were made in 800 of the 1000 cases, and NDI in the remaining 200 cases. For this experiment we will pretend that there were no inconclusives. So, it’s 800 DI, 200 NDI. Of the 800 DI calls, 700 of them were rewarded with confessions, 100 were not. Of

the 100 non-confessing DI calls, 20 were found to have been truthful examinees. In summary, there were 720 DI cases for which there was confirmation: 700 correct and 20 errors. Eighty cases called DI were unconfirmed either way.

For Examiner X's 200 NDI calls, one was a false negative error, and 49 were subsequently confirmed as correct. This left 150 NDI decisions unconfirmed. To summarize Examiner X's 200 decisions of NDI, 49 were confirmed as correct, one confirmed as error, and 150 were unconfirmed.

How would you calculate decision accuracy? Polygraph publications show three ways examiners have done this. One is to look only at the number of errors and the number of confirmed cases. In the example there were 770 confirmed cases with 21 errors and 749 right decisions. This produces an accuracy of 97.3% (749/770). We will call this Method A.

A second way is to look at how many cases were conducted and how many errors were made. In the example there were 1,000 cases conducted and 21 confirmed errors. This comes to an error rate of 2.1%, and therefore an accuracy of 97.9%. This will be Method B.

A third way, we call Method C, is to find the accuracy for truthful cases and the accuracy for the deceptive cases, and then average those accuracies. In this example the accuracy for confirmed deceptive cases is 99.9% (700/701). The accuracy for confirmed truthful cases is 71.0% (49/69). To calculate the overall accuracy for Examiner X, we average the two accuracies. The average of 99.9 and 71.0 is 85.5. Method C yields a decision accuracy of 85.5%.

Is there something wrong with Method A? As it turns out, a lot. Method A has been distorted by the sample sizes. Most of the cases were confirmed deceptions, and the polygraph results did best with deceptive cases. The highest accuracy was for the larger group of cases, and poorest for the smaller group, so that the deceptive cases had a disproportionate effect on the accuracy estimate. This becomes clearer if we extend our thought experiment a bit. Suppose that Examiner X had gone DI with all 1,000 cases, that is, 100% DI calls and no NDIs. This would have resulted in 701 correct and confirmed DI calls, and 69 confirmed errors, for an accuracy of 91.0% (701/770). Using Method A our Examiner X could claim very respectable accuracy simply by making nothing but DI decisions. The apparently good performance arises solely from the

fact that Examiner X had mostly deceptive cases, and was making only DI calls. This should make obvious that Method A is fatally flawed.

How about Method B, what's wrong with that? There were only 21 confirmed errors for Examiner X's 1000 cases, which means the remaining 979 cases were correct, right? If it were only so, all of us could claim incredible accuracy. No, the sad truth is that uncovering polygraph errors in the field is hard, so hard that no one has yet figured out a way to do it well. It has proven to be one of the most intractable problems for polygraph field research. It is unlikely in the extreme that Examiner X made no more errors beyond the 21 that were discovered. How many more, no one can tell. Because the discovery rate of errors must underestimate their actual occurrence, presumptions of accuracy for cases where errors are not discovered is unreasonable. Method B is also fatally flawed.

What's wrong with Method C? Other than it yields an accuracy estimate lower than what our egos might like, not much. It simply summarizes how Examiner X did when factors such as confirmation bias and unbalanced base rates are considered. It is the method preferred in the 2011 APA meta-analysis of techniques and validity.

And it is the method we should all be using, in my view.

We might remember that polygraphy is more than just "detection of deception." Detecting deception is not enough. The power of the polygraph is in its ability to distinguish truth from deception, a much harder challenge. Those of us who tout our high confession rates, or the low percentages of discovered errors, aren't really speaking to how accurate our polygraph decisions are. We may be offering select facts about our performance, but these should not be confused with the validity of our decisions.

Method C is the best of the three approaches for calculating examiner decision accuracy. To repeat, one should determine the accuracies for deceptive and truthful cases separately, then average those accuracies to come to an overall accuracy. Method C is one thing researchers can do to mitigate validity creep.

All tests are imperfect to varying degrees, including polygraph testing. Perfection is not an essential criterion for employing tests. Some tests with lower reliability and validity are routinely employed in formulating high-stakes decisions in medicine, the courts, and many other settings. Society could not function without tests

because they offer the best chance of making correct decisions. It is important to convey what a test can and can't do so the end user can weigh the test results properly. Honestly identifying polygraph's strengths and weaknesses will save us a lot of explaining later on. We might remind ourselves and others that the polygraph, as imperfect as it is, remains the least imperfect of all of the available credibility assessment technologies.

From almost the beginning, detractors have struggled mightily to make the polygraph go away, and to turn to "something else." It should be obvious that if there were a better "something

else," we should be using it. After decades of research by the government and at universities, nothing out there appears to have captured the combination of accuracy and utility of the polygraph. How long before we need to exchange our polygraphs for a new technology? If the National Academy of Sciences didn't see any better alternative to the polygraph on the horizon, it's probably a safe bet we will have to wait a while for that "something else" to get here.



LIFE WITH POLYGRAPH BEFORE EPPA

David N. Henigsman

Introduction by Gordon Vaughan

I recently had the privilege of meeting David Henigsman during a presentation I gave to the Colorado Polygraph Association. He shared his experiences as a private polygraph examiner pre-Employee Polygraph Protection Act (EPPA). As EPPA was passed 27 years ago far fewer examiners have first-hand experience from those days. David graciously accepted the invitation to chronicle that experience as well as his experience in polygraph, and the result is the following article. I am sure you will find it fascinating.

As a note, David describes pricing of polygraph examinations in his geographic area at the time. This information is provided simply for historical context and no pricing information is included post EPPA. Nothing in this article or in its publication should be taken to suggest any pricing for professional polygraph services, and indeed such conduct is strictly prohibited by law and the policies of the APA. (See the APA Anti-Trust Policy printed elsewhere in this publication.)

GV

SETTING THE STAGE

I am now in the category of the Old Timer Examiner. Occasionally, I am asked to describe what commercial polygraphy was like in the 1970s and 1980s before Congress passed the Employee Polygraph Protection Act ("EPPA"). Prior to EPPA, competition was fierce, and consequently pressure was on to conduct polygraph examinations at lower and lower prices. Time was money and, in order to be profitable, many polygraph examiners and agencies attempted to make up for the low examination fees by conducting many examinations a day. This led many examiners to disregard good polygraph procedure and professional ethics. This inevitably fueled opponents' characterization of the polygraph as inaccurate, an invasion of privacy, biased against the truthful, and particularly inaccurate for screening tests.

Employers, however, considered the polygraph a deterrent to employee theft. In October 1982, a newspaper report from the "COLORADOAN" provided information from the Gannett News Service that department stores were losing at least \$1.35 billion a year to employee theft. The report further stated that, "In the retail industry,

shrinkage refers to the amount of inventory a store loses. A study by Arthur Young & Co. blames 50 percent of the shrinkage on employee theft."

Polygraph was not all bleak in those times and did have some silver linings. The APA Newsletters from the 1980s reported numerous professional commercial examiners who, through their training and expertise, had resolved major crime issues and either helped place the guilty in jail or saved the innocent. Also, progress in instrumentation and testing techniques moved forward.

One positive outcome about EPPA was that it helped eliminate many of the "operators" who were just in it for the buck. At the beginning of 1988, prior to the enactment of EPPA, the Colorado Polygraph Association had 84 members. One year later, we had dropped to 29 members, 9 of whom were private examiners.

Since EPPA, I have witnessed an enormous positive change in the profession of polygraph. Instrumentation has moved to computerized polygraphs, and certain techniques have been studied and validated. Standards of practice of the APA, professional ethical requirements, and school ac-

creditation requirements have led to better, more professional examiners getting more accurate results and doing so while maintaining the rights and dignity of the examinee. It has been a remarkable ride.

Polygraph School:

My polygraph career began by attending the Zonn Institute of Polygraph in Atlanta, Georgia, between November and December 1974. The course was six weeks long and cost \$900.00. We had 18 students in the class, 12 were private and six were law enforcement. To determine our suitability to enter the polygraph profession, we all had to take and pass an entrance pre-employment type polygraph examination.

Our director, Ben Malinowski, taught core subjects to include physiology and psychology. Ron Decker spent two days with us instructing us in chart interpretation. In 1974, there were nine deceptive criteria for the respiration, four for the EDA, and nine for the cardiovascular system.

The primary test techniques taught were the Army version of the Backster Zone of Comparison (three relevant questions at 5, 7,10; three compari-

son questions¹ at 4,6,9, and SKY on the third chart); the Standard MGQT (relevant questions at 3,5,8,9; comparison questions at 6 and 10). Also included were the General Questions Test and Pre-Employment screening. Numerical analysis was not taught. I was introduced to the seven position numerical evaluation about two years later when I was informally tutored by a senior examiner named Clark Tebbs.

Watt Van De Werken, an examiner and General Manager Polygraph Division at Lafayette Instrument Co., spent two days with us presenting the features of the Lafayette products. I purchased for \$2,148.00 a state of the art Lafayette four pen electro cardio instrument which I used until about 1984, when I switched to a five pen Lafayette Factfinder. A Stoelting representative, whose name I cannot recall, spent a day with us presenting the Stoelting products.

Upon completion of the six-week course, we received a certificate attesting to the training hours we completed. We were not allowed to receive our diplomas until we had submitted back to the school 25 completed polygraph

¹ While comparison question is the currently accepted name for such questions we referred to these as “controls.”

examinations which were to be a mix of specific issues and pre-employment.

And So It Begins:

I am a Colorado native and had been away from the state for 22 years. Ben Malinowski led me to a job opening in the Denver area. One of his former students was looking for an examiner, so in January 1975, I drove to Colorado to attend an interview (that felt more like an audition) and I received the job. The great majority of testing performed by our agency was screening for commercial pre-employment. We also conducted numerous general specific-issue tests for money and merchandise loss issues for commercial clients. Additionally we had a good clientele of defense attorneys who sent us various criminal cases.

Pre-Employment Examinations:

The agency-owner instructed our secretary to schedule for each examiner a maximum of eight pre-employment (PE) exams per day, starting at 8:00AM. A PE exam would be scheduled every hour, four in the morning, four in the afternoon. Lunch hour was from 12:00 to 1:00 .p.m. Most of the time, we had three to four examiners on staff, including the owner. Not every day was

an eight exam day. Some days, we had between three and seven exams scheduled per examiner.

We had one hour to meet with an examinee, explain polygraph, complete a background form (Appendix 1), discuss and explain the relevant questions (Appendix 2), and conduct two test charts. The primary testing format was the Relevant / Irrelevant technique (RIT). No stimulation test or comparison questions were used. The polygraph explanation was in layman's terms and included information as to how a lie was formed in the brain and transmitted through the body to the instrument.

Reports were drafted on a typewriter and given to the secretary for finalization on her typewriter. Computers had not yet been invented - or at least had not found their way to Colorado. Lunch took about 10 minutes; the rest of the hour was spent drafting reports. Many nights I took charts and paperwork home to draft reports. The cost for a pre-employment exam was \$25.00. This was the average rate for the Denver market. However, like other parts of the country, we experienced price wars. Some examiners were charging \$10.00 to \$15.00, conducting 15-30 minute exams, and tak-

ing severe shortcuts. We always used to say, "An examiner knows what he is worth." In ensuing years, the average cost would rise.

Our PE clientele included over-the-road trucking companies, retail stores, liquor stores, convenience stores, pizza parlors, restaurants, property management companies, various warehouse operations, gas stations, auto dealerships, vending companies, a speedway, a turf farm, truck stops, and adult movie theaters. We had one law enforcement agency client.

Our owner had the gift of gab and was enthusiastic in going after business. As he traveled around town and happened to stop at a convenience store or gas station, he would extol the virtues of polygraph testing to the owner or manager and champion how it could reduce employee theft.

Specific Issue Examinations

During the 1970s and 1980s, we conducted innumerable examinations regarding money/merchandise loss issues for various companies. Owners, accountants, and inventory counters would sometimes identify a specific inventory loss of \$2,000-3,000.00 or more. Often, however, no specif-

ic items or amounts of money were known. Also, often, there were no specific employee suspects. For example, a convenience store might simply require all store employees to be polygraphed based on suspicion of theft or just to make sure that it was not occurring. In such cases, we embarked on fishing expeditions to determine if and who had stolen what, or who had falsified what receipts to cover up what stealing, and who might have given away what merchandise to friends and family.

The testing technique we used in these examinations was the General Questions Test (Appendix 2). The format was RIT. In time, we started using one or two questions to try to gain better accuracy. Two test charts were conducted; several times we conducted a third clearing chart on the issue(s) where an examinee might be having difficulty clearing an exam. No stimulation or acquaintance test charts were conducted. We often obtained written signed statements from many employees who admitted to various wrongdoings. These examinations were scheduled two hours apart; the cost was \$50.00 for the first hour and \$25.00 for each additional hour. Many employees were not stealing, and we could conclude their examinations in

about an hour's time.

Criminal Specifics

Defense attorneys would send us clients accused of various offenses. We would receive copies of police reports and witness and victim statements. These examinations were scheduled for a morning or afternoon because time depended on the nature and complexity of the case. The test technique employed was either the Zone of Comparison or the Standard MGQT. We used a number-type simulation test. Three test charts were conducted. The cost was, at that time, the same as for the commercial loss issues. Several of these cases were conducted on camera.

The types of offenses we normally received were assaults, burglary, robbery, drug sales and possession, motor vehicle theft, arson, major traffic offenses, financial fraud, an occasional adult rape, and an occasional murder. During the 1970s and 1980s, we did not receive any child sexual assault cases. It was not until 1990 that we became inundated with that type of case.

In 1985, we began to receive a few divorce custody cases in which the

mother was accusing the father of molesting their 4-6 year old child. For the great majority of these cases, the father was determined to be non-deceptive.

Taking Polygraph on the Road

Much of our commercial-loss issue testing was conducted on site. Many companies did not have adequate facilities to enable privacy and dampen outside noise.

One examiner who moved to Denver in 1976, and worked with us for about eight months, told me about an on-site requirement he had back East to test employees at a gas station. Upon arrival, the only place he could set up was in the men's restroom. He placed the instrument on top of the toilet tank. While standing, he conducted the pretest interview and ran the test charts. The examinees sat on the toilet.

Our agency owner decided to invest in a motor home system with which we could park on site, plug in to a power source, and conduct our examinations in an environment that was conducive to privacy and did not interrupt the client's normal business activities.

He purchased a large pre-owned Executive-type motor home, which we used for dual examiner operations. Every Friday evening for almost a year between 1975 and 1976, we drove the motor home to a nearby large family and entertainment restaurant which hired many young people. The managers would select 5-6 employees at random for testing. Most of the time, no losses were suspected. The owner would conduct the pre-test interview up front at a table behind the driver's seat. He would then send an examinee to me at the rear to conduct the test charts while he began another interview. If I saw deceptive criteria, I would attempt to obtain additional admissions and then run a clearing chart. Our time on site was usually about four hours.

This motor home was also driven to on-site locations in Casper, and Cheyenne, Wyoming and into Nebraska. This operation was so successful that the owner decided to expand the operation. In August 1975, he purchased a new Tioga motor home on a Dodge chassis that we used for single examiner operations. I drove the Tioga to on-site testing at gas stations, pizza parlors, restaurants, an ice cream parlor, and adult movie theaters.

In February 1976, I received a dual requirement to take the Tioga to Fort Collins, Colorado, to test 15 employees at a large pizza parlor, then the next day drive back to Longmont and test at a gas station. I began testing at the pizza parlor around 10:00 a.m. and finally finished about 1:00 a.m. the next morning. I had a free pizza break about 6:00 p.m. I was prepared to spend the night and slept in the over-the-cab bed. The Tioga was plugged into the building's power source. Sometime after 2:00 a.m., the parlor closed down and turned off the power. I almost froze the rest of the night. The next morning, I drove in a snow storm to Longmont and tested two people at the gas station. Two other employees refused to take the test.

On another occasion in 1976, I drove the Tioga to Laramie, Wyoming. A gas station owner called and requested we test his employees to resolve a money loss. The trip to Laramie was about a four hour drive. Upon arriving at the gas station, the owner informed me that all of his employees had refused to take the test. So, I had to turn around and make the trek back to Denver. The agency owner was not pleased with my report. For him, on that day, time was not money.

Acquaintance Tests

Around 1977, we began receiving information about acquaintance tests. During specific criminal issues, we were using a simulation test of having the examinee pick a number. From then and into the 1980s, examiners were experimenting with various types of acquaintance testing which were employed as the first test chart or the second chart.

In 1982, our second owner used a marked deck of eight playing cards, so he knew exactly what card his examinee had picked. He gave me a set. I tried using it twice but had difficulty deciphering the markings on the cards, so I gave up on that system. Besides, I did not regard it as very ethical.

We also used the True Blue Test, consisting of three laminated cards – one blue, one red, one half blue/half red. While holding up each card, we asked the examinee, “Is this card blue?” He told the truth on the blue card, lied on the red card, and told a half-truth on the half card.

I knew another examiner in Colorado who used weighted items and a scale. In a cigar box, he placed four to five items which had some weight, such

as a large nut & bolt, a wrist watch, a rock, etc. While he turned his back, the examinee was instructed to select and remove an item in the box and hide it on his person. The examiner then placed the box in his lower right hand desk drawer on top of a scale. He knew the weights of each item, and by reading the scale he knew which item the examinee had removed. He then conducted an acquaintance test asking the examinee if he removed each item. The examinee was instructed to answer no to each question. After the test he told the examinee which item he removed.

In 1985, we were introduced to the Calibration Verification of Sensitivity (CVOS) test and began employing that type test as our first test chart on specific issue tests. I like that test and continue to use it today on all test techniques.

Anger Issues with People

Colorado never had a licensing law. We as examiners knew that many irregularities were occurring with other examiners and at other polygraph agencies. Several times, we received examinees into our agency displaying outward anger toward the polygraph.

After talking with them for a few minutes, we learned they had previously taken a polygraph examination that had resulted in a bad experience. Common complaints included polygraph not being explained, test questions not fully explained, being called liars during the pre-test interview, un-reviewed questions being asked during chart runs, and finally being told they lied on various test questions when they knew they were truthful. Once they understood everything would be explained and they would not be treated as they were previously, their anger subsided and we concluded with a successful examination.

One day in 1976, a lady arrived for an applicant appointment - she was irate. She stomped into the exam room and in a loud voice told the examiner that polygraph operators were no good and the polygraph was just an intimidation process. The examiner spent almost 15 minutes explaining our process and trying to calm her down. She finally divulged the reason for her anger. She had undergone a previous polygraph in another western state, during which the examiner made sexual advances towards her. She assumed she was going to receive similar treatment in our agency. When she finally understood she would be

treated with respect, her anger subsided and her examination proceeded towards a truthful conclusion.

Pre-Employment Readjustment

In 1983, within our agency, we discussed ways in which we could be more professional with our PE exams. During that time, some examiners around the nation were using audio cassette recordings through which an examinee would listen to an examiner explain the polygraph and receive instructions on answering a pretest questionnaire. We decided to produce a video presentation on a VCR tape system in which the owner would explain the polygraph, then guide the examinee through a pre-printed work sheet. Examinees would receive guidance in completing and providing answers to most of the issues that would be covered during the in-test phase.

This system became very successful. Examinees told us they felt better about the polygraph, they seemed less anxious or nervous, and there was no initial confrontation with a total stranger asking background questions. The only confrontation examinees had was with themselves. Admissions and the percentage of truthful results seemed to increase. With this system, the total

time an examinee spent in our office was about two hours.

We reduced the maximum number of PE exams per examiner per day to six. Examinations were scheduled 1½ hours apart. While an examiner was testing, a new examinee would be going through the video process.

By late 1986 and into 1987, we knew EPPA was on the horizon. Our state association donated about \$1,800 to the APA to help assist their lobbying efforts to persuade legislators to reconsider their course of action. Our members wrote to their congressional representatives. Many of our clients did the same -- all to no avail. We began to prepare for the inevitable.



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A Literature Review of Polygraph Countermeasures and the Comparison Question Technique

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We reviewed the published literature on countermeasures (CMs) and the comparison question technique (CQT) polygraph examination. We tried to consolidate the literature for examiners so they may better understand the scientific state of CM research. We operationally define CMs, include a CM taxonomy, discuss individual studies, and summarize the findings. We list and attempt to answer a number of study questions with evidence-based support. We limited this review to the comparison question test (CQT) in order to focus the questions and to help examiners realize the complexity of the issue.

In order for a CM to be effective in a CQT, it must satisfy two requirements. First, it must create a sufficient difference in the polygraph measurements to comparison and relevant questions to produce a truthful or inconclusive outcome. Secondly, it must be done covertly as to not be identified by the examiner, an observer, or any quality control review. In considering what information would be most helpful to examiners we provide evidence-based answers to some important questions about CMs.

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What is our operational definition of “countermeasure”?

There have been a number of proposed definitions from within and outside of the profession for the term CM. We needed to operationally define CM as it applies to polygraph testing. We considered a CM to be anything a test subject does in an attempt to alter the test data so as to produce a truthful (negative) test result. This definition encompasses the truthful subjects trying to ensure a True Negative (TN) result and the deceptive subjects trying to produce a False Negative (FN) outcome. One could ostensibly argue that all subjects engage in some form of behavior to produce truthful outcomes and are thus attempting CMs - the truthful tell the truth and the deceptive lie, but we feel these actions don't fit our definition for altering the test data. To alter means to change or make different in a meaningful way.

What type of CMs do people use?

We followed Honts' (1987) taxonomy of CMs as it breaks down CMs into categories that have been researched, though others have produced different recommendations for CM categorization (see Krapohl, 2009). In following Honts (1987) we break CMs down into the following categories;

1. General State CMs- actions intended to alter the subject's psychological state and/or measured physiological responses throughout the entire examination. They include such things as; drugs, relaxation, or interfering agents. They are not focused on any specific point in the testing.
2. Specific Point CMs- as their name suggests, these are actions the subject takes at specific points in the testing process. They can be attempts to reduce responses to relevant questions but are usually efforts to increase responses to comparison questions. They can be employed physically, mentally or in combination.
3. Spontaneous CMs- these are CMs that subjects report doing without planning or forethought. A number of laboratory studies debriefed subjects

about efforts to produce truthful outcomes. These debriefs are the source of most of our knowledge of spontaneous CMs. Subjects report trying such things as; relaxation, rationalization, imagery, attempts to control their breathing and heart rate, trying to stay calm, biting their tongue and pressing their toes at random places.

4. Information CMs- people who know they are going to take a polygraph examination (both guilty and innocent) often seek information about tests and CMs from the internet or other sources. This information seeking can be motivated by an attempt to satisfy curiosity, to try and hide deception, or in an effort to ensure that truthfulness is obvious.

Given our operational definition and taxonomy we sought to provide evidence-based answers to some important questions about CMs. Evidence-based answers and practices concerning CMs are not simple. They have to be based upon research and not on anecdote. Evidence-based answers and practices have to be qualified by the limitations of the research upon which they are based. Those qualifications depend on such things as whether the subjects were coached or if they had practice on an instrument. Who the subjects were. Did the examiner use some sort of activity sensor? Here is a brief summary of some findings from the peer-reviewed published studies we examined for this paper.

1. Rovner (1986) is a rewrite of Rovner, 1979 in which he trained subjects on the principles of CQT testing, including giving them pictorial examples of reactions. He called these the Info group. He also gave the Info group Specific Point CM training using a variety of physical and mental CMs known to produce reactions. He had a second group called the Info + Practice group. He gave them the same material but allowed them to practice their CMs on a polygraph before their real test. The accuracy of the results for the control and the Info group was about 88%. However, the Info + Practice group accuracy results were about 62%. He did not report using an activity sensor or making attempts to identify CM subjects.
2. Dawson (1980) used Stanislavsky trained actors to attempt General State CMs in a mock-crime lab study. They were not trained in polygraph princi-

ples and they did not receive practice. The CM group actors were motivated to appear innocent to display their superior acting skills. CM deceptive subjects said they used imagery and prior memories as strategies. The General State CM effects were ineffective. Excluding inconclusive results, all CM subjects were found deceptive.

A side note, Dawson conducted an interesting additional experiment. He had subjects answer the polygraph questions in two ways, immediately after the question and delayed by 8 seconds. He measured responses in three ways; after the question without an answer, after the immediate answer and after the delayed answer. Based on numerical scores he reported the following. Immediate answers accuracy was 75% correct, 12% incorrect, and 12% inconclusive. The measurements following the question but before the delayed answer produced 83% correct, 8% incorrect, and 8% inconclusive. The measurements taken after the delayed answer resulted in 29% correct, 8% incorrect, and 62% inconclusive.

3. Bradley & Ainsworth (1984) tested General State CMs by using alcohol intoxication during a crime act and also during polygraph testing. They tested subjects with the CQT and the CIT. We'll limit our discussion to the CQT findings. They measured heartrate, respiration and electrodermal responses during a mock-crime robbery and shooting. They reported alcohol intoxication during the crime decreased detectability with electrodermal activity. Intoxication during the testing was ineffective.
4. Honts, Hodes & Raskin (1985) in experiment 1 trained the CM group on the principles of polygraph CQT and Specific Point CMs. They coached the subjects on physical (press toes to floor) and pain (bite tongue) CMs. They did not get any practice on an instrument. They used a photoelectric plethysmograph instead of a cardio cuff. They reported no significant effects for the CM group. They were unable to detect which subjects used CMs by either direct observation or reviewing the charts. They did not use an activity sensor.

5. Honts, Hodes & Raskin (1985) in experiment 2 trained the CM group on the principles of polygraph CQT and Specific Point CMs. There they coached the subjects on physical (press toes to floor) and pain (bite tongue) CMs. However, unlike experiment 1, these CM subjects got to practice on an instrument. They also used a cardio cuff in this experiment. They reported there was a 47% FN rate for the CM group. Again they were unable to detect which subjects used CMs by either direct observation or reviewing the charts. They did not use an activity sensor.

6. Honts Dissertation (1986) trained subjects in physical (muscle contraction), pain (bite tongue) and mental (counting backwards) Specific Point CMs. He taught the subjects the principles of CQT testing and coached them on how and when to apply the CMs during the presentation of the comparison questions. They did not get any practice on an instrument. Honts measured muscle movement by electromyography (EMG) on the jaw and the calf. The original examiner classified only 41.2% of the CM subjects correctly as deceptive. 47.5% of the CM subjects produced FN results. A blind scorer was correct with 37.5% of the guilty CMs and 33.8% of them produced a FN result. The EMG recordings for the CM subjects were significantly larger than those for the controls, allowing the CM subjects to be identified.

7. Honts, Raskin, Kircher & Hodes (1987) trained subjects in physical (press toes to floor) and pain (bite tongue) Specific Point CMs. They gave the subjects training on CQT principles and coaching on when and how to apply the CMs to the comparison questions. They did not give any practice on an instrument. They monitored EMG recordings from the subjects' jaw and calf. They reported no FNs with the guilty control group who did not use any CMs. They identified 78% of the truthful subjects correctly. Seventy percent of the guilty CM group produced FN results. They identified 90% of the CM subjects by EMG tracings.

8. Honts, Raskin, Kircher & Hodes (1988) subjects were 65 deceptive subjects from four studies who were debriefed about any use of Spontaneous CMs. Sixty percent (39/65) of the deceptive subjects admitted to Spontaneous CMs. The strategies included: relaxation, rationalization, self-deception, disassociation, imagery, attempts to control breathing and heartrate, biting tongue, attempts to control general physiological responses and pressing toes to the floor. Blind scoring accuracy was 80% correct, 3% wrong and 17% inconclusive. The use of Spontaneous CMs did not affect the test results. Examiners were unable to differentiate CM users. No activity sensor was used.

9. Raskin and Kircher (1990) trained subjects in physical (muscle contraction) and mental (counting backwards) Specific Point CMs. They taught them the principles of polygraph testing and when they should employ the CMs. They coached them and they had practice on an instrument. They used a seat activity sensor. The CMs produced about 50% FNs when scored by the computer. All of the physical CMs were identified by reviewing the seat sensor data.

They also trained a "relaxation" group on the principles of polygraph. This group used autogenic relaxation as a General State CM throughout the entire examination. The relaxation General State CMs were not effective.

10. Honts, Raskin & Kircher (1994) trained subjects in Specific Point CMs and CQT polygraph principles. Here they used physical (muscle contraction), pain (bite tongue) and mental (counting backwards) CMs during the comparison questions. The subjects were coached but not given any practice on the polygraph instrument. They measured EMG on the jaw and calf. The CM group produced a 50% FN rate and were not detected by direct observation or by looking at the polygraph charts. The EMG scores for the pain and physical groups were significantly larger than the other groups.

11. O'Toole et al., (1994) was a partial replication of the Bradley & Ainsworth (1984) study on General State CMs using alcohol. Here the deceptive CM group were intoxicated only during the mock-crime theft. They measured skin conductance, respiration and finger pulse amplitude. They did not provide any information on polygraph principles, they did not coach or practice any CMs with the CM subjects. Alcohol intoxication during the crime had no effect on polygraph results.

12. Honts, Amato and Gordon (2001) did not train any of their subjects but debriefed them on what actions they took to help pass their polygraph tests in a large lab study. Overall 68% of the subjects reported they attempted a Spontaneous CM. Almost half of the truthful subjects (46%) reported using at least one Spontaneous CM. These Spontaneous CMs included altered breathing, and mental and physical strategies. The Spontaneous CMs did not affect the deceptive scores but it shifted the truthful scores in a negative direction. In other words, the truthful subjects who tried to help increase their chance of a TN result had less truthful scores than those who did not attempt Spontaneous CMs. These subjects were not coached, nor were they given practice tests on an instrument. There was no activity sensor used in any of these cases.

Later, three federally certified instructors reviewed the charts in an effort to identify the presence of CMs. None of the three federally trained instructors could identify the CM subjects at better than chance levels by reviewing the test data.

13. Oglivie & Dutton (2008) reanalyzed unpublished data from a CM lab experiment with and without the activity sensor tracing. In this case the activity sensors included, seat, feet and arm sensors. The CM polygraph subjects in these cases received a copy of the internet publication of *The Lie Behind the Lie Detector* (Maschke & Scalabrini, 2002) as a reference. This material has detailed descriptions of CQT polygraph principles and

CM strategies. The CM subjects had to pass a written examination on the CM material before proceeding. They used physical (toe curling) Specific Point CMs during the presentation of the comparison questions. A subset of the CM group was allowed to practice on an instrument while receiving real-time feedback from an experienced examiner.

Five experienced polygraph examiners reviewed the polygraph charts in two conditions; with and without the activity sensor data. The examiners were asked; a) to score the test data using a 7-position federal scoring rules, and b) using a 5-point Likert scale rate the absence or presence of CMs. Mean CM present/absent scores were statistically significant between the sensor and no-sensor conditions. Without the activity sensor, the CM present/absent scores were near zero. Examiners did not perform above chance levels when relying on the traditional polygraph channel data to identify CMs, without the activity sensor data. Adding the activity sensor data made identifying the CM group more likely.

Also, the average guilty CM total scores with the activity sensor was similar to the truthful scores (they were positive). The average guilty CM total scores without the activity sensor was double the average truthful scores. This shows that the Specific Point CM strategies created increased FN results.

14. Honts & Reavy (2015) did not train any of their subjects but debriefed them on what actions they took to help pass their polygraph tests in a large lab study. Overall 48% of the subjects reported they attempted a Spontaneous CM. About 50% of the subjects who received probable lie comparison questions (PLC) reported Spontaneous CMs. For the directed lie comparison question variant (DLC) subjects, about 46% reported Spontaneous CMs. Breaking it down by guilt, overall 78% of the deceptive group reported Spontaneous CM attempts (DLC=72%, PLC=83%). Within the truthful group 18% overall reported attempts at Spontaneous CMs (DLC=20%, PLC=15%). None of the differences were significant. The investigators did not make any attempt to identify CMs either through direct observation or data review. Just like in Honts, Amato, & Gordon (2001)

the scores for the truthful CM groups were less positive. Once again this suggests truthful subjects who use Spontaneous CMs hurt their chances of passing the test.

15. Stephenson & Barry (1998) was not a CQT study but is of note here due to the findings. The subjects were examiners in this case so they had extensive knowledge about the CQT polygraph procedures and CMs. They tested whether they could identify when a subject makes a “physical movement between the toes and shoulder” while collecting polygraph test data. They used an activity sensor mounted to the front of the test subject’s chair. They collected test data in a mock acquaintance test during which the examiner counted from 1 through 10. At some point the test subject was to make a covert physical CM attempt and remember the number at which they attempted the CM. They stationed an “observer” directly in front of the test subject who watched for movement. The overall CM detection rate for the examiner observing the subject was 9%. The “observer” identified the Specific Point CMs in 36% in of the cases. When they used the movement sensor tracing, the experimenters identified 85% of the CM attempts.

16. Honts & Alloway (2007) was a constructive replication of Rovner (1986) using the Test for Espionage and Sabotage (TES). They gave half of the truthful and deceptive subjects the book *The Lie Behind the Lie Detector* (Maschke & Scalabrini, 2000) to study for one week. They found no significant effect of providing the Information CM material on validity of the TES. Once again, however, those subjects who reported using CMs had significantly lower probabilities of truthfulness. This included both the truthful and the deceptive subjects.

Questions and Evidence-Based Answers

1. *Do both truthful and deceptive subjects attempt CMs?*

The simple answer is “Yes.” Research shows that both truthful and deceptive subjects report attempting Spontaneous CMs. From study 6 (Honts et al., 1988) which was limited to deceptive subjects, 65% of them attempted Spontaneous CMs. From study 11 (Honts & Reavy, 2015) about half of the subjects overall reported attempting Spontaneous CMs. A larger proportion of deceptive subjects reported attempting Spontaneous CMs but 18% of truthful subjects also reported attempting Spontaneous CMs. From study 9 (Honts, Amato and Gordon, 2001) we see about 68% overall and about 50% of truthful subjects attempted Spontaneous CMs.

2. *What type of CMs do subjects attempt?*

From a number of studies above Spontaneous CMs include a variety of reported strategies; relaxation, rationalization, self-deception, disassociation, imagery, attempts to control breathing and heartrate, biting tongue, attempts to control general physiological responses and pressing toes to the floor. Specific Point CMs generally included physical (press toes, curl toes, etc.) or pain (biting tongue) and mental (counting backwards) activities. Some Information CM sources suggest such actions as squeezing the anal sphincter (<http://www.polygraph.com/>). More sophisticated advice about examination behavior and chart recording CMs is offered at <https://antipolygraph.org/> (Maschke & Scalabrini, 2005). Some examinees reported attempting a form of General State CMs when they describe attempts at rationalization, relaxation, disassociation, imagery, etc.

3. *What type of CMs are effective at increasing TN results, creating a FN result, or inconclusive outcomes and to what degree?*

Spontaneous CM produced no effects for the deceptive subjects in terms of increased TN or inconclusive outcomes, nor were there reliable effects found in the numerical scores. Deceptive subjects in study 13, Honts & Alloway (2007), shifted the scores away from a truthful result. Spontaneous CMs by truthful subjects decreased their chances of being found truthful. Information CMs that lead to Spon-

taneous CMs simply shifted truthful scores in the negative direction (see study 9 and 13). General State CMs have not been shown to be effective (see study 2). Specific Point CMs have been shown to be effective in shifting differential response measurements and increasing FN results (see studies 1, 2, 4, 6, 7, 8, & 10) following specific training, but not just information. Specific Point CMs thus seem to be most dangerous when coupled with hands-on training and practice.

4. *Do polygraph test subjects attempt CMs more with Directed Lie Comparison questions versus the Probable Lie variant?*

This has not been shown by the relevant research (see study 11).

5. *Can examiners identify examinees using CMs at better than chance rates? And does the addition of activity sensors make a difference?*

Without an activity sensor there are no studies that support examiners can identify CMs at better than chance rates (see studies 4, 5, 6, 7, 9, & 10). In fact, the research indicates that when examiners try to identify countermeasure they falsely accuse a substantial number (47% or more) of innocent non-countermeasure users of using CMs (study 12). With an activity sensor (or EMG) polygraph examiners are able to significantly identify CM users (see studies 1, 2, 3, 7, 10, & 12) who use CMs that required movement (for example, pressing the toes to the floor.) Finally, there is no evidence that current training in countermeasure detection is effective. In fact the alleged respiratory countermeasure signatures caused by the countermeasure materials produced by Williams (<http://www.polygraph.com/>) have been shown to occur naturally in a substantial number of actually innocent subjects who were not using CMs (Honts & Crawford, 2010).

6. *How does using CMs affect the scores of truthful and deceptive subjects?*

Specific Point CMs increase FN outcomes following training by producing significant effects in all of the polygraph components depending upon the countermeasure used (see studies 1, 2, 4, 6, 7, 8, & 10). It is unclear what their effect would be for increasing TN outcomes, though there is no reason to think they would not be effective.

Spontaneous CMs don't increase FN and probably decrease TN results. Informa-

tion CMs that lead to Spontaneous CMs would be expected to have similar results. Spontaneous CMs are extremely common with examinees. There does not appear to be any evidence that such CMs are effective. Therefore, as the evidence seems to suggest, if the data simply appears to be messy, and there is sufficient uncontaminated data to conduct an analysis, the scorer should attempt to analyze the uncontaminated data, and a decision should be rendered by the scorer if conclusive scores are reached (ex. NDI/NSR, DI/SR). Examiners should report when data quantity and quality are insufficient to complete a standardized numerical evaluation. An example of reporting language is:

After assessing the quantity and quality of the test data collected in this examination, I determined that the test data were of insufficient interpretable quantity and/or quality as a result of numerous artifacts to conduct a standard numerical evaluation. In other words, there was insufficient data to evaluate in order to render a reliable decision on this examination.

General State CMs are unlikely to create a differential response between relevant and control questions that would increase TN or FN results. At worst they might be expected to cause an inconclusive result due to mitigating the overall responsiveness to all test questions, but even increases in inconclusive outcomes have never been demonstrated in a published peer-reviewed study. An unpublished study (Gatchel et al., 1984) tested the General State CM effects of the beta-blocker drug propranolol. The only significant finding was an increase in accuracy with the innocent. The Bradley and Anisworth (1984) study reported no effect for alcohol intoxication during a polygraph test. However, they found an effect for intoxication at the time of the crime (see study 3). The replication of that study (O'Toole et al., 1994) failed to find an effect for alcohol and FN results for intoxication at the time of the crime (see study 11). Dawson (1980) had experienced actors try to produce FN results using General State CMs and reported no effect (see study 2).

In summary the CM research base is incomplete and additional research is needed. However, the research shows trained CMs are something that should concern examiners as under certain circumstances they have produced substantial numbers of FN errors. Moreover when trained deceptive subjects use CMs, examiners have not shown an ability to identify those subjects at better than chance rates

without some sort of activity sensor (and then only for CMs that require physical movement). Regardless of any alleged anecdotal successes at detecting CMs, no research has shown that any examiner can reliably detect CMs from simple pattern recognition. In fact, as mentioned, research has shown that the respiratory patterns that are allegedly linked to training in the Williams CM approach occur naturally in the respiration recordings of a substantial number of actually innocent subjects (Honts & Crawford, 2010).

We realize a number of things that might be CMs appear spontaneously among truthful examinees. What could distinguish these events from CMs, though, is the frequency or the targeting of the behaviors. For example, both truthful and deceptive examinees move during polygraph tests. This does not, in and of itself, mean that movements are not useful in detecting CM attempts. Indeed, research shows that movements can be strong indicators in that regard. The mere presence of hyperventilation, as another example, does not confirm CMs, but if they persist despite examiner warnings or they seem to appear only on one category of question, then they can be useful indicators. Ultimately we hope further research will help develop improved objective measures of anomalies among groups of questions. Future CM detection efforts should probably seek an objective measurement approach.

The research clearly shows that when examiners do try to detect CMs they falsely accuse a substantial number of actually innocent subjects. Examiners should be extremely cautious about reporting CMs based on their ability to intuit a subject has used CMs, as doing so puts the innocent at risk. The upside to this literature is that when deceptive subjects engage in CMs that require movement they can be reliably identified when examiners use an activity sensor. Finally, there is no published research that information provided by internet CM websites is at all dangerous to the validity of the CQT.

Examiners may find Table 1 a quick reference for a consolidation of the CM study data. Note Honts et al., 1988 is not included in the table as those results were derived from included studies.

Table 1 – Breakdown of CM study findings.

Study	Test type	Type of CM	Training Y/N	Coached/ Practice on inst. Y/N	Activity Sensor Y/N	Findings reported
Rovner (1986)	CQT	Practice CM group used physical and mental CMs. They got to practice and received feedback.	Info group and info + practice group All given extensive training on polygraph principles and CN strategies	Coached-yes Practice-yes	No	Accuracy of scoring: Standard group = 87.5%; Info group = 87.5%; Info+practice group = 62.5%
Dawson (1980)	CQT	General State CMs	No	No	No	General State CMs had no effect.
Bradley & Ainsworth (1984)	Limited to CQT part	General state CMs- alcohol intoxic during crime and during polygraph	No	No	No	No effect for intoxic during testing. EDA responses were reduced for intoxic during crime scenario.
Honts, Hodes & Raskin (1985) Experiment number 1	CQT	CM groups used: 1. Bite tongue or 2. muscle contraction press toes to floor	All given extensive training on polygraph principles and CN strategies	Coached-yes Practice-no	No Also no BP cuff used in experiment 1	No significant effects for CMs found. Unable to detect CM subjects through chart interpretation or observation.
Honts, Hodes & Raskin (1985) Experiment number 2	CQT	CM groups used: 1. Bite tongue or 2. muscle contraction press toes to floor	All given extensive training on polygraph principles and CN strategies	Coached – Yes Practice- Yes	No	47% FN for CM groups. Unable to detect CM subjects through chart interpretation or observation.
Honts dissertation(1986)	CQT	Muscle CM; press toes to floor. Pain CM: bite tongue Pain + Muscle: Do both Mental CM: Count backwards	Yes CM group trained on polygraph principles and CM strategy	Coached- Yes Practice-no	Yes EMG on the jaw and leg.	Original examiner: CM groups 41.2% correct, 47.5% wrong. Blind scorer CM groups: 37.5% correct, 33.8% wrong. EMG measures for CM groups were significantly larger than controls.
Honts, Raskin, Kircher & Hodes (1987)	CQT	CM group used: bite tongue & press toes to floor	Yes CM group trained on polygraph principles and CM strategy	Coached-yes Practice-no	Yes EMG on the jaw and leg.	No FN with Guilty control. 78% innocent correct. 70% FNs. 90% of CM subjects identified with the EMG tracings.

Raskin & Kircher (1990)	CQT	CM group used: Physical-muscle contraction PLUS Mental Counting backwards Relaxation group used: mental imagery	Yes CM group and relaxation group trained on polygraph principles and CMs. Practice recording, practice logs,	Coached-yes Practice-no	Yes seat sensor	Computer: CM group =50% FN. Relax not effective. All physical CM subjects identified by activity sensor.
Study	Test type	Type of CM	Training Y/N	Coached/ Practice on inst. Y/N	Activity Sensor Y/N	Findings reported
Honts, Raskin & Kircher (1994)	CQT	CM group used: Physical-muscle contraction Pain bite tongue Mental group: Counting backwards	All given extensive training on polygraph principles and CN strategies	Coached-yes Practice-no	EMG-jaw and calf	FN= 50% for Mental & Phys. CM Unable to detect CMs by observation or chart tracing EMG measure for physical and pain subjects were significant.
O'Toole et al. (1994)	Limited to CQT part	General state CMs- alcohol intox during crime	No	No	No	No effect for intox during crime
Honts, Amato & Gordon (2001)	CQT	All CMs were spontaneous- Some subjects used more than one. 32%-breathing 76%-mental 10% physical	No	Coached-no Practice-no	No	3 DoDPI instructors did not identify presence of CMs above chance level. 47% of CM present decisions were on truthful subjects.
Oglivie & Dutton (2008)	CQT	Physical CMs: Toe curling	All given extensive training on polygraph principles and CN strategies	Coached-yes Practice yes for a subset	Compared with and without seat, feet, and arm activity sensor data. 15 Innocent. & guilty control and 38 CMs. Charts printed with and without activity trace.	Five scorers looked at 68 cases Mean activity sensor scores significant for CM group with and without sensor. Unable to determine presence of CMs without the sensor data.

Honts & Reavy(2015)	CQT	spontaneous	no	no	yes	No attempt to identify CMs. 48% attempted CM PLC=50%; DLC=46% 78% Guilty attempted PLC 83%; DLC 72% 18% Innocent attempted PLC 15%; DLC20% Truthful scores less positive when CMs attempted
Study	Test type	Type of CM	Training Y/N	Coached/ Practice on inst. Y/N	Activity Sensor Y/N	Findings reported
Stephenson & Barry (1988)	Examiner counted 1-10 and	Subject made a physical movement between the toes and shoulder	Info yes because it was an examiner.	Coached- yes because it was an examiner. Practice=yes	Yes-used Lafayette chair with activity sensor bar under the front legs	Had an observer in front of subject in addition to examiner. CM detection rates were: Examiner=9%; observer=36%; movement sensor tracing= 85%
Honts & Alloway (2007)	CQT	Information and Spontaneous CMs	No	No	Yes under the chair legs	No effect on FN Deceptive and Truthful CM subjects' probabilities scores moved away from truthfulness.

Investigative Interviewing- The Essentials

Edited by Michel St-Yves Published in 2014 by Carswell publications

Book Review by Mark Handler



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A topic intimately related to polygraph, and yet often overlooked, is Investigative Interviewing. Many polygraph examiners are unfamiliar with the concept. I hope by way of this book review to introduce interested readers to Investigative Interviewing. This book succinctly provides a reader with the essentials and practice of Investigative Interviewing. The practice recommendations from this book will surely improve the quality of anyone's investigative work, regardless of the milieu.

The book is for anyone who interviews anyone else, but is especially appropriate for polygraph examiners who are often in the unique position of neutral fact-finder. Polygraph consumers and end-users look to polygraph to solve problems that for the moment seem unclear. There is no better time to take advantage of the essentials of Investigative Interviewing than during a polygraph pretest interview. Examiners are in a unique position to establish an information gathering environment. Examinees can be cajoled into providing

information that can be exculpatory or inculpatory. The interview setting can give them rope to pull themselves out of their proverbial hole - or hang themselves in the process.

I often hear examiners say they “seek the truth”, but that really isn’t the first step in the process. We can’t get to the slippery truth without facts to check out. We can’t get the facts to check out if we don’t interview. Information is the lifeblood of any investigation. It provides direction; it can show attempts at misdirection. Information helps confirm what we know, disconfirm what we thought we knew, and help reveal what we don’t know. Having the tools to best develop information is essential- as the book points out.

Michel St-Yves is a Canadian forensic psychologist who works with the police. He is a friend and advocate for law enforcement which is clearly reflected in his work. His area of expertise is in conducting investigative interviews and teaching law enforcement to do so. He gathered some of the world’s leading experts on the subject and had them write “how to” chapters for the book, geared towards the practitioner. While many books from academicians focus on theory, this is not one of them. This is for the investigative interviewer and it is especially rel-

evant for polygraph examiners.

The book begins with a wonderful primer on rapport by St-Yves. Investigators are often taught the importance of establishing and maintaining rapport. But what does rapport look like? How do we get (and keep) it? Why is it essential to the investigative interview? The author tackles these, and many other of the thorny questions about rapport. In my opinion it would be worth buying the book for this chapter alone. For without rapport, the interview is doomed.

The second chapter is an update on the Cognitive Interview (CI), which should be used in every polygraph pretest interview. Ed Geiselman and Ronald Fisher developed the CI around 1985 and published their first book in 1992. In this chapter they describe updates, improvements and findings about the CI. The CI is a general strategy for guided memory retrieval based on scientific knowledge of human memory. The goal is to generate rich detail, without contamination. Over 100 empirical studies show a 25-50% increase in detail over a standard police type question and answer interview.

In chapter three experts on child interviewing provide recommendations for conducting physical and sex abuse investigative interviews. Cyr, Dion and

Powell break down and discuss best practices for the child interview. They include; planning & preparation, communication rules for obtaining an account, establishing and maintaining rapport, memory limitation discussion and questioning strategies. The authors give several example interview protocols that have been scientifically shown to work well with children. Finally they remind us that children, including adolescents, are not just “little adults” and we need to modify our interviewing approaches to maximize information gain with this population.

Chapter four deals with eye witness memory and identification. Hope and Sauer are cognitive psychologists whose focus and expertise is human memory and decision making. We are asking examinees what they remember so it is incredibly important to have an understanding of the limits of human memory. Likewise, we engage them in decision making process, tell or don't tell, so we should have a basic understanding of neuroeconomics. Much of this chapter focuses on witness identification so it will be more useful to examiners who also conduct police investigations that include witness identification. The authors provide the current best practice standards for conducting show-ups, line-ups and photo identification. They also give sound advice

on presenting witness identification evidence in court.

A short chapter on false memory by James Ost follows and reminds us that we have incredible power in the interview room that can create false memories. Ost is a false-memory expert who has published extensively on the subject. He provides a short review that includes; what are false memories, how do they occur, what are some of the mechanisms know to create them, what is the evidence of their existence? Most importantly he provides clues or indicators of concern that a reported memory may be false. Much of this relates to claims of physical abuse and sexual abuse reports, which constitute the bulk of many police polygraph examiner's workload.

Chapter six is the heart of the book, in my opinion. Written by Michel St-Yves and Christian Meissner, two of the current leading authorities on suspect confession and confession related concerns. They review; the importance of confession evidence, who confesses, why people confess, the internal and external pressures that precipitate confession, personality factors that affect confession, and much more. They breakdown “interrogation” into its component parts that mirror the P.E.A.C.E. model. They discuss important verification and control practices to try to

ensure the confession is real, and not false. Many of us think we know what to do, what not to do, and how to do it. This chapter provides a benchmark against which to see if you are following recommended practices.

Gisli Gudjonsson is one of the world's leading authorities on mental vulnerabilities and false confessions. His chapter seven is a comprehensive review of the current state of knowledge on the subject. Mental vulnerabilities are psychological states and traits that increase a person's risk of providing inaccurate or unreliable information during an investigation. It includes; low intelligence, developmental disorders, personality disorders, high suggestibility or compliance, and recall concerns like memory distrust syndrome. Gudjonsson reminds us that just because someone has one of these, it does not invalidate their confession. His concerns and recommendations are prophylactic and protective. He reminds us how important it is to assess for vulnerabilities ahead of time, if possible. He also reminds us to reflect afterwards on whether the subject had any mental vulnerabilities that may have affected their statement or admission. Most polygraph examiners know that people we encounter can seem overrepresented by the groups most concerning to Gudjonsson. We can benefit by paying heed to

his concerns and recommendations.

Aldert Vrij is a leading authority and researcher on the science of detecting deception. He has authored several books and numerous chapters and research articles on the subject. In chapter nine, Vrij updates us on "myths and opportunities in verbal and nonverbal lie detection". This chapter should be a must read for every police officer, police recruit, attorney, judge, and criminal justice professor or professional. Vrij summarizes the myths surrounding the unassisted human lie detector hypothesis. He provides examples of evidence-based practices that actually do separate truthful from deceptive subject, though the differences are small. He closes out with a best practice recommendation for conducting an investigative interview.

The final chapter of the book is co-written by a number of experts in Investigative Interviewing training. They provide a framework for effective police interview training. They share their thoughts and experience on the best way to train new (and old) police investigators in Investigative Interviewing. Most of the authors have been involved in police training development for many years and have helpful insights on successful training strategies.

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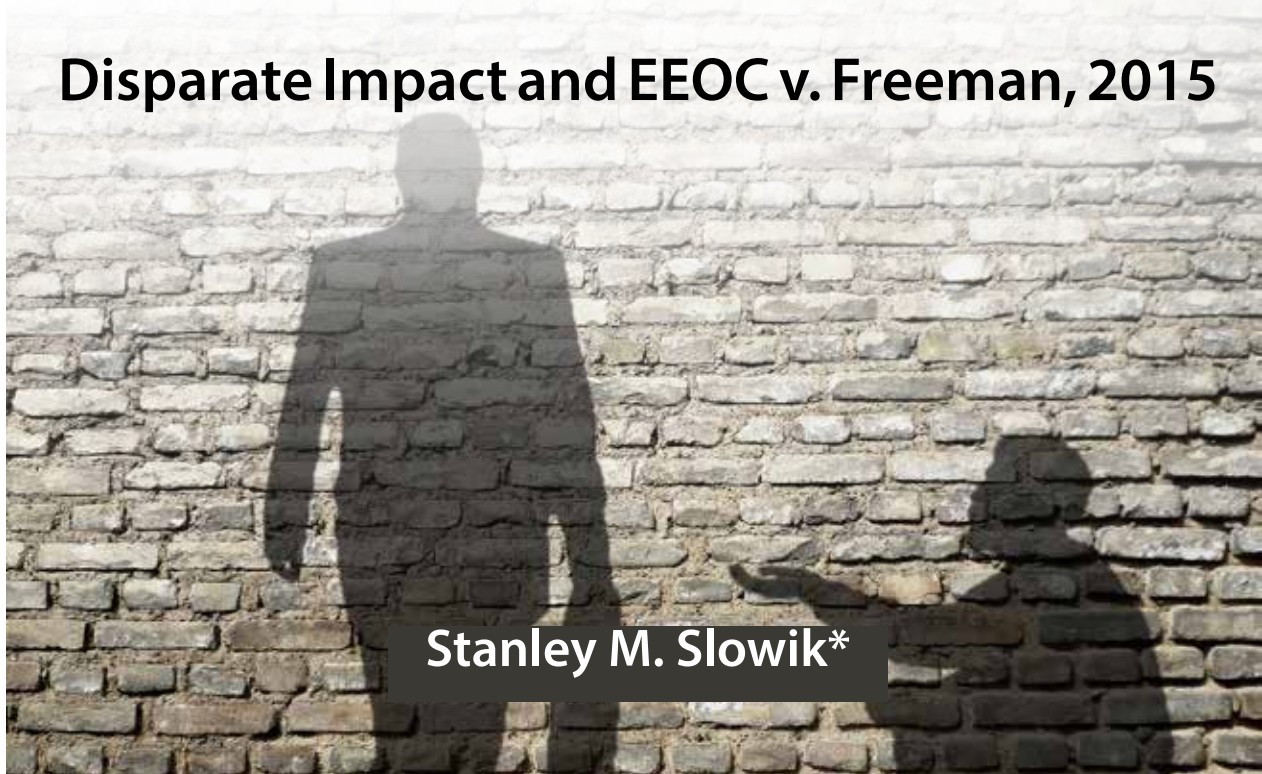
St-Yves skillfully closes the book with his concluding thoughts on the past and future of Investigative Interviewing. He reminds us that Investigative Interviewing has moved from the realm of art into the realm of science and art. Learning from scientists in allied disciplines will only improve what we do. There is a great deal of evidence from the lab and field that supports these recommendations. St-Yves recaps the essentials of good communication skills and their importance when interviewing witness, complainants and suspects. He reminds us that all good interviews require preparation and a mindset towards unbiased information gathering.

As polygraph examiners it seems we should be ethically bound to conduct investigative interviews during our pretest interview. We have a unique opportunity to gather information before conducting any test. That information can be exculpatory, inculpatory, or inform the investigation in some important way. If we approach the pretest interview as an information gathering event we can increase the information gained during the testing process. Many interviewees (truthful and deceptive) will provide information during an appropriate investigative interview. They simply have to be given the opportunity. The book *Investigative Interviewing - The Essen-*

tials can open your eyes to a world of improvement. I seldom recommend any book with such enthusiasm, but this is a rare occasion.

The French novelist Marcel Proust said, "The real voyage of discovery is not in seeking new landscapes but in having new eyes." I hope this book helps you see interviewing through new eyes. It certainly did so for me.

Disparate Impact and EEOC v. Freeman, 2015



Stanley M. Slowik*

As discussed recently in the APA Magazine(1), the Obama Administration has been, laudably, trying to raise awareness about racism and sexism in the United States. The Equal Employment Opportunity Commission (EEOC) recently tried use the concept of disparate impact to allege racism and sexism in employment decisions, housing mortgages and the administration of criminal justice. Disparate impact, simplistically, occurs when a particular group defined as protected by some employment or civil rights law, experiences a statistically signifi-

cant and adverse impact as a result of some identified practice. Statistically significant, in turn, has traditionally been defined by the 4/5ths Rule or 80%. Disparate impact often involves a practice that, on the surface, appears neutral but has a disproportionate effect on different identified groups. For example, both male and female applicants might be required to take the same physical agility test as part of an employment selection process. Physical agility tests that have been properly validated for the specific job-related tasks found in jobs such as patrol officer

*Stanley M. Slowik is a long time contributor and the author of one of the first federally recognized high quality research studies of polygraph validity. The author has attempted to convey the opinions of recent federal reports and court decisions which are not necessarily his own or those of the American Polygraph Association.

or firefighter consistently produce test results with males passing or scoring higher than females. Such tests have a clear, statistical gender bias (disparate impact), even though there was never any intent to discriminate. They are legal because through job analysis they are based upon real, work-related tasks. Previously, researchers and test vendors attempted to overcome this gender bias by weighting the physical agility test scores in favor of female applicants using percentile rankings(2). This approach, however, is unlikely to survive legal scrutiny in light of the consistent Supreme Court decisions striking down the use of race and gender based quotas and affirmative action programs. In addition, changes to the Civil Rights Act of 1991 specifically prohibits the use of different cut-scores or other statistical manipulation to employment test scores and results (3). In essence, legally, employers cannot use gender or racial bias to create gender or racial equality.

Disparate treatment, however, is very different from disparate impact in that it requires intent, e.g. requiring only women to take and pass the physical agility test. In these cases, bias in hiring based on race and gender have been allowed to correct a prior wrong. Historically, if a practice was found to have a disparate impact on a protect-

ed group, the employer would then have the opportunity to show that the practice was job-related and consistent with business necessity and no less adverse alternative evaluation method was available. It should be noted that business necessity has nothing to do with private sector enterprise but rather applies to all organizations, public and private, and refers to things that are necessary for the organization to exist or function. If a practice having a significant disparate impact upon a protected group could be shown to be relevant to performance and business necessity (validated), it was considered legal (4). The EEOC and the U.S. Attorney General's Office have challenged these historical interpretations, determining, in short, that if there were a significant, statistical disparity, this alone should be sufficient to prove a racist or sexist motive. This interpretation however, has very been rebuked in unusually strong terms by the federal District and Appellate Courts, at least with regard to employment practices.

Employment Decisions

In EEOC v. Kaplan Higher Education Corporation (5) the EEOC maintained that Kaplan's use of credit record checking with applicants seeking employment in positions with access to the company's financials, cash and

student financial aid information was a racist and therefore an illegal practice due to disparate impact on African American applicants. The Sixth Circuit found to the contrary for Kaplan and upon appeal affirmed, specifically mentioning the EEOC's "laughable" disparate impact analysis, writing that the EEOC "flunked all of the factors" required in a Daubert analysis (6) and that credit records contained no information identifying the race of the person. Even more troubling to the Court was the fact that the EEOC was aware that Kaplan only instituted credit record checking after they had caught their employees stealing student financial aid payments and that the U.S. Department of Education imposed severe penalties on institutions that misuse student financial aid information, almost the very definition of job-related business necessity. Further, the Court found the EEOC's allegation of racism hypocritical after it was shown that the EEOC itself used the same credit checks as Kaplan for 84 of the agency's 97 job positions because, as the EEOC's handbook states "overdue just debts increase temptation to commit illegal or unethical acts as a means of obtaining funds to meet financial obligations", precisely the same business necessity Kaplan cited in its defense.

Most recently, in *EEOC v. FREEMAN* (7),

the Fourth Circuit found and affirmed in favor of employer's use of criminal and credit record checks in hiring, a practice which the EEOC alleged were both racist and sexist practices because of disparate impact against African American and male job applicants. As was the case in Kaplan, the Court found a "mind boggling" number of errors and unexplained discrepancies in the EEOC's disparate impact analysis. In perhaps one of the more remarkable observations, one judge's written opinion warned that:

"The EEOC must be constantly vigilant that it does not abuse the power conferred upon it by Congress, as its significant resources, authority, and discretion will affect those outside parties they investigate or sue... The Commission's conduct in this case suggests that its exercise of vigilance has been lacking... It would serve the agency well in the future to reconsider how it might better discharge the responsibilities delegated to it...."

Since these are both very recent decisions it is too soon to evaluate whether they will have any effect on the Ban The Box movement that has already resulted in legislation restricting public employers use of criminal record background checks (*ibid*, Compliance).

At the heart of both the Kaplan and Freeman decisions were the studies using of statistical analysis to prove disparate impact. Very few polygraph examiners have ever conducted or published research involving statistical analysis and may not even recognize when studies are being conducted in a less than objective manner without someone having to explain the analysis. In the words of the federal courts:

“Proof of disparate impact requires reliable and accurate statistical analysis. The inevitable focus on statistics in disparate impact cases requires a very high standard of proof. Merely pointing to statistical disparities is not sufficient. They must show that a practice has caused exclusion of applicants because of their membership in a protected group.”

The Department of Justice Bureau of Justice Statistics has consistently reported that males are four times as likely to be arrested and convicted of serious crimes, particularly crimes of violence, than females. The Bureau also consistently reports a two to one disparity along racial lines (8). These statistics merely reflect that different groups have different outcomes at different rates. No one should conclude, for example, that sexism is twice as

common as racism. Statistical correlations often have nothing to do with causation. Polygraph examiners who conduct screening examinations often have the applicants' NCIC and DMV reports prior to the examination and can sometimes compare the records to polygraph admissions of actual conduct. When a person's recent, work related past is being used to predict what they might do in the future if hired, the admissions of what they say they did are a more accurate basis of prediction than what appears on the record after charge and plea bargaining. In short, the Bureau's disparity statistics, when viewed without any other information, neither prove nor disprove sexism or racism.

Studies in neuroscience and behavioral biology indicate that testosterone has a considerable influence in tendencies toward physical aggression and risk behaviors. Not surprising, then, sexual misconduct, financial corruption and violence all tend to not only statistically correlate with gender but, in fact, biological gender differences may heavily contribute to the cause of the disparity (9). The EEOC studies however, concluded that sexism was at least primary if not the sole cause of the statistical gender differences and therefore the disparities in arrest and conviction rates. The four federal courts completely dismissed this finding because they found that

the study's poor design and "cherry picked data" failed to consider other obvious causes: biological differences predispose men to engage in violence and risk more so than women.

Racial disparities are far more difficult to causally explain but one fact often overlooked is the way some of the data used by the Bureau of Statistics has been gathered. Shortly after the original Uniform Guidelines were published in 1979, the EEOC in conjunction with the Office of Personnel Management and Departments of Justice, Labor and Treasury published Adoption of Questions and Answers to Clarify ... Uniform Guidelines (10). In this seminal document, all the federal agencies charged with oversight of the Guidelines clearly state that while employers are required to collect and maintain both gender and racial data, they are not required to report intra-category differences.

"Q/A 17: There is no obligation to make comparisons for subgroups, e.g. white male, white female, black male, black female..."

It is therefore quite possible that some of the racial differences in the arrest and convictions rates are not so much racial as gender influenced. The take-away from all of this might be best summed up by the Freeman trial court

(11) citing ipse dixit and previous decisions involving studies using statistical analysis.

If there is too much of a gap between the study's findings, the quality of the data and study methodology, then even the most rigorous statistical analysis doesn't make it true simply because the researchers say the statistics prove it true (12).

Background Investigators and polygraph examiners can avoid winless arguments about race and gender by creating hiring standards based on commissions of recent, work related activities and leave postulations about the causes of statistical disparities to the federal courts. Also, while very few employers possess the resources of Kaplan or Freeman, the judiciary appears to be very much aware that supposed neutral federal agencies such as the EEOC can abuse their authority and still be held accountable.

1. *Compliance Update: Employment Practices and Procedures, APA Magazine, V48, N1, pp51-56, Jan/Feb, 2015*
2. *Questions Regarding Fitness Standards, https://www.cooperinstitute.org/vault/2440/web/files/684.pdf, pp 6-9*
3. *Civil Rights Act of 1991, Section 106, www.eeoc.gov/eeoc/history/35th/thelaw/cra_1991.html*
4. *Uniform guidelines on employee selection procedures, Equal Employment Opportunity Commission, Civil Service Commission, Department of Labor & Department of Justice, Federal Register, 43, 38290-38315, 1978*
5. *EEOC v. Kaplan Higher Education Corporation, 2014 WL 1378197 (6th Cir. 2014)*
6. *Ibid, pp 5-7*
7. *EEOC v. Freeman, No.13-2365, 2015 U.S. App. (4th Cir.Feb 20, 2015)*
8. *Bureau of Justice Statistics, www.bjs.gov*
9. *Women After All: Sex Evolution and the Evolution of Male Supremacy, Konner, M., W.W. Norton & Company, March, 2015*
10. *Adoption of Questions and Answers to Clarify and Provide a Common Interpretation of the Uniform Guidelines on Employee Selection Procedures, EEOC et al, FR Vol 44, No 43, March 2, 1979*
11. *EEOC v. Freeman, 961 F. Supp.2d 783, Dist Court, D. Maryland, 2013*
12. *General Electric Company v. Joiner, 522 U.S. 136. 146, 118 S.Ct.512, 139, L.Ed 2nd 208 (1997)*



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WHAT THE LIE-DETECTOR CAN'T DO*

Paul V. Trovillo†

A lie-detector, as used today, usually is an instrument for the recording of changes in blood pressure, pulse, respiration, and electrical phenomena of the skin. It functions as an aid in determining whether or not a person under investigation is telling the truth. Such instruments are found today in many police departments where trained examiners are daily recording the peculiar patterns of mental conflict and emotional stress pointing toward a criminal suspect's innocence or guilt.

Lie-detectors are not infallible; neither are they mechanical scarecrows to frighten the timid. Often their use may assume unusual importance in helping to separate the innocent from the guilty; and from the disturbed reactions of the guilty the examiner may be able to obtain more precise information as to the details of an offense than is possible with many other techniques. However, neither the operator nor the investigators having the test made should expect too much of the instrument. The accompanying illustrations were prepared to call attention to a number of situations which, among others, make it difficult—if not impossible—for an honest examiner to furnish a conclusive report of innocence or guilt. It is hoped that examiners unfamiliar with the limitations of the test, and investigators who are contemplating its use, may find these illustrations of some value and interest.

* The sketches which are reproduced in this article were made by Mr. Paul Kreger of the W. P. A. Illinois Art and Craft Project.

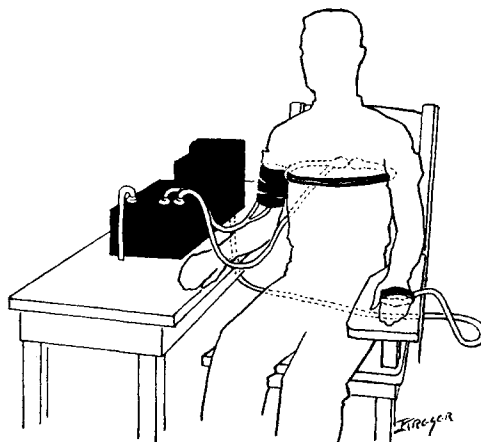


FIGURE 1

A lie-detector, such as the one at the Chicago Police Scientific Crime Detection Laboratory, employs the following attachments: a blood-pressure cuff attached to the bared upper arm; a pneumograph tube, to aid in measuring rate and depth of breathing, encircling the chest; and electrodes affixed to the back and palm of one hand and connected with equipment for registering electrical skin reactions.

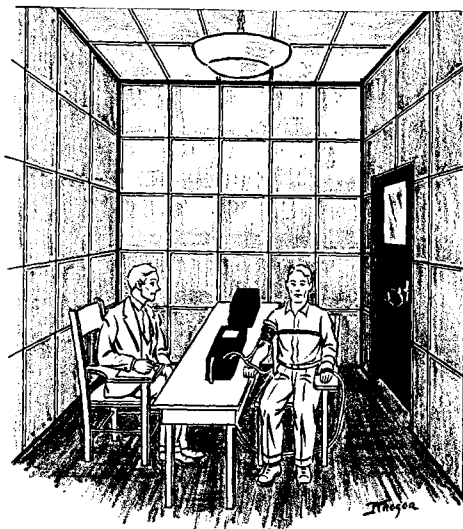


FIGURE 2

Lie-detector tests should be made in a quiet, private room, where all disturbing stimuli can be controlled or eliminated.

† Forensic Psychologist, Chicago Police Scientific Crime Detection Laboratory.



FIGURE 3

The nervous excitement of the innocent can generally be differentiated from the indications of guilt.



FIGURE 4

The attitudes of callous indifference found among some "repeaters" may prevent detection of deception.



FIGURE 5

A man who understands more than he wishes to admit! He is setting out to delay and confuse the examiner and thereby prevent a deception diagnosis.



FIGURE 6

The examiner would be happier if only our friend could understand that last question; and if he could experience the *all-essential* fear of detection.



FIGURE 7

The insane make better subjects for the psychiatric clinic than for the lie-detection laboratory.



FIGURE 8

A lie-detection test is most successful if made before extensive accusation of the suspect elsewhere.



FIGURE 9

Some people complain unduly about the pressure applied to the arm during the test. Their usual reason for complaining is to discourage further testing.



FIGURE 10

If only he had not partaken of so much of the liquid shortly before appearing for his test as a key witness!



FIGURE 11

A satisfactory recording of the blood pressure, pulse, and respiration cannot be obtained on subjects as fat as the one shown here!

It is because of just such situations and personalities as here illustrated that competent lie-detection examiners cannot always render a definite report as to the subject's innocence or guilt. Because of the very nature of a lie-detector test, occasionally a report must be indefinite, and this is true even when the examiners are exceptionally well prepared for their work. This field of investigation is not so precise in its findings as firearms or fingerprint identification, and the evidence should not be taken before the courts until it is more precise.

If examiners and investigators alike will accept the instrument *only* as an additional investigative technique and as a specific aid in disclosing significant emotional excitement, and not as an infallible detector of lies, much good can come from its extensive use.

In spite of the limitations of today's tests, the lie-detector's advantages have



FIGURE 12

This fellow has just been given a first-class beating by some of his outraged neighbors. He is in no shape for a lie-detector test.



FIGURE 13

Conscientious operator who *wants* to write a conclusive report of subject's innocence or guilt. He won't be able to because he has just examined the people shown here!

made possible a new tool of police investigation. Its virtues are best appreciated by those police officers and others who have witnessed with their own eyes the applications of lie-detection technique in the interrogation of criminal suspects.

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