Remembering Robbie, p. 8
Quality data acquisition begins with your instrumentation

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✓ Data acquisition system: 8 channel DataPac_USB or 9 channel Paragon
✓ Polygraph Professional Suite software license
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✓ 1 adjustable blood pressure cuff, 1 FingerCuff, cardio tubing and Riester sphygmomanometer
✓ 1 StingRaySE Piezo electronic CM sensor
✓ 1, 2 & 3 OSS and Relative Response Magnitude (RRM) scoring algorithms included
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✓ Pelican 1450 instrument case
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The truth of the matter is, administering a polygraph exam without insurance is reckless.

Professional and Personal Injury Liability
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  - Interviewing
  - Written Testing
  - Private Investigation
  - Background Checks
  - Law Enforcement Polygraphs

General Liability (available in most states)
May 30th was the final day for nominations for the offices of the APA Board. Elections will be held electronically July 14-20. Good luck to all of the candidates.

A quick comment regarding an email you may have received in mid-May from an APA member regarding a series of letters to the editor published in the recent issue of Polygraph. To some the email suggested that there are editorial rules that prohibited the publication of the email author’s second rebuttal. For clarity, the APA encourages responsible debate in Polygraph. Letters to the editor are always accepted and published without edit, except those that are ad hominem, inflammatory, simply repetitive, in poor taste, or appear to be aimed at circumventing the journal’s peer-review process.

(cont. on pg. 6)
The CPSpro combines the unparalleled accuracy of Stoelting’s polygraph hardware with our all-new state-of-the-art Fusion software. Designed from the ground up, CPSpro Fusion is loaded with innovative and powerful new features which will provide you with all the tools necessary to efficiently and reliably conduct, score, and report polygraph examinations.

When your reputation is on the line, and the truth is the only thing that matters, you can be confident that the CPSpro provides you with the tools to make the right call. Let CPSpro put science on your side…
The author of the recent email did not submit his second rebuttal for publication, and consequently there was no evaluation for compliance with editorial standards. We value member opinions, manuscripts, and letters, and will continue to support thoughtful debate. APA publications will remain an outlet for intelligent scientific and technical ideas.

I hope to see everyone in Seattle for the APA’s 49th Annual Seminar in Workshop.

---

A Notice From the Awards Committee

It is time for members to submit recommendations for the APA awards. As a general reminder, and specific information for new members, there are six (6) awards presented annually by the General Chair at the banquet of our annual seminar. The Awards are as follows:

**Cleve Backster Award** - Honoring an individual or group that advances the polygraph profession through tireless dedication to standardization of polygraph principles and practices.

**William L. and Robbie S. Bennett Memorial Award** - Recognition of Excellence - Achievement award presented as a token of APA appreciation for unrelenting efforts and display of ability in APA interest.

**Al & Dorothea Clinchard Award** - Honoring extended distinguished, devoted and unselfish service in behalf of the APA membership.

**Leonarde Keeler Award** - For long and distinguished service to the Polygraph Profession.

**David L. Motsinger Horizon Award** - In recognition of a new shining star in the profession or association who early in their career demonstrates loyalty, professionalism and dedication to the polygraph profession (less than 10 years)

**John E. Reid Award** - For distinguished achievements in polygraph research, teaching or writing.

Please send any nominations for APA annual awards to
APA National Office, PO Box 8037, Chattanooga TN 37414-0037
manager@polygraph.org

**Deadline is 1 August, 2014**
With the 4 March 2014 passing of Robbie Bennett following her 29 years of service to the American Polygraph Association, I have been remiss in personally updating the membership of activities associated with that extremely emotional event. Past Presidents were telephonically notified when possible and official notification was posted to the APA website for the membership and world at large. Several Board Members and numerous close friends attended funeral services to pay respect, express sorrow for the loss and gratitude for the love and support Robbie provided to the APA. At the same time, many understood that Robbie was rejoining the love of her life – husband Bill and achieving everlasting life.

I have been greatly honored to have known and worked closely with Robbie for several years. I witnessed her dedication to service for the APA Boards and the membership at large. Board members came and went. Robbie was there to keep it all together. In conversation during a couple of her last few days, Robbie again continued to express her
concern for the welfare of the APA membership. She expressed gratitude for the calls, emails, flowers and all expressions of love, concern and thankfulness from the many polygraph examiners and associates from around the world. In her eyes and those of her sisters, one could see the love, compassion and concern they had and have for one another. Right or wrong, I believe Robbie had at least three great loves in her life – her husband Bill, her family, and the APA.

I ask all to reflect not just on the great person Robbie was and all that she did for us, but to reflect on what we, as individuals can do to honor Robbie’s professional service to us and others. I suggest that we can, at the least, follow Robbie’s example and always try to do the best we can do.

Sincerely,

Chuck Slupski
President
American Polygraph Association

At the 2006 APA Seminar in Las Vegas
(photographs courtesy of Bob Heard)
It is my great sadness that Mrs. Robbie passed away. She was very friendly to everyone. I would say since I became member in APA in 1996, when I called or emailed her anytime for inquiry, she never delayed her reply. Not just any reply, but she gave you a perfect and satisfying solution. I am not the only one to miss her, nor will only APA members, but all people who were around her.

- Essam ElDin

(photograph courtesy of Essam ElDin)

Above and left - Taken at the 2006 APA Seminar in Las Vegas.

Below - Taken at the 2013 APA Seminar in Orlando

(photograph courtesy of Bob Heard)

Probably she has not realized how important she is not only for our profession but in our life!!

- Luz Del Carmen Diaz

(photograph courtesy of Luz Del Carmen Diaz)
LX5000 Advanced Computerized Polygraph

The LX5000 provides superior physiological data and the most advanced electrodermal solutions that have ever been available to polygraph examiners. Backed by hardware and software engineers with decades of experience, the LX5000 system offers a robust platform that stands apart from other systems, performing under the most demanding conditions. Our LX5000 is the most advanced and flexible polygraph system available today!

**LX5000 Hardware Features**

Designed as a robust system that is significantly smaller in size, our basic LX5000 System records nine channels at a time, and provides you with many additional benefits including:

- Data transfer rate up to 360 samples per second across all channels
- 24-bit analog to digital conversion
- Small, compact design making transport and storage easy
- Can add up to 9 additional channels (18 total)
- Extended measurement ranges
- Selectable GSR or GSC channel
- Dedicated PPG channel included
- Durable, yet lightweight design
- Operation with our proven, state-of-the-art LXSoftware
- 3 year warranty and lifetime technical support

**LXSoftware v11.1 Features**

Windows®-based since 1994, our software offers unparalleled ease-of-use and proven reliability, and is Windows® 7 compatible. LXSoftware comes with POLYSCORE® and Objective Scoring System Scoring Algorithms, as well as, the following features:

- Updated User List and Audit Trail
- Ability to “Snap” an Individual Trace to Baseline
- Integrated Multi-Language Support for English, Spanish, and Russian languages
- Six EDA choices (GSR or GSC - manual, detrended, and automatic)
- Multi-Camera Support: will support up to 16 cameras, providing multiple views of the subject
- Customizable Personal History and Exam/Series forms
- Scripting Capability
- Save Polygraph Files and all other documents as PDF formats

sales@lafayetteinstrument.com
www.lafayettepolygraph.com
Phone: (765) 423-1505
Announcement

APA Editor-in-Chief Position

The APA is now seeking competitive candidates for the position of APA Editor-in-Chief to assume responsibilities in 2015. All aspirants should express their interest by submitting a self-nomination packet to the APA National Office by August 1st. The packet should include a description of qualifications. The APA Board of Directors will review all packets received by the deadline, and make a selection at their regularly scheduled meeting in September.

Candidates should be aware that:
1. A competitive selectee will have a demonstrated familiarity with the content of past APA publications.
2. The position will include a modest stipend.
3. Past editors reported a commitment of about 400 – 500 hours per year to complete all responsibilities.
4. The current Editor will work with the selectee to ensure a seamless transition.

The APA Editor-in-Chief has the Constitutional responsibility for the production and delivery of APA publications, including four annual issues of Polygraph, six of the APA Magazine, and others as approved by the APA Board. The following is a summary of the responsibilities attendant to this position:

The quarterly journal Polygraph
1. Gather or accept articles for publication in the journal, with an adequate mix of topics of interest and useful for our readers.
2. Coordinate the peer-review process, using associate editors or others.
3. Notify authors of the acceptance or rejection for each article.
4. Edit each accepted article, with appropriate correspondence and communications to make necessary changes in text, tables, organization and references.
5. Provide reference materials to authors and others who need it for professional purposes.
6. Assemble each collection of articles for publication as an issue, with running titles, sequence, and customary editorial marks.
7. Proof the final draft from the Managing Editor.
8. Ensure consistent editorial standards are enforced.
9. Communicate with the printer to ensure timely delivery of the journal.
10. Approve new advertisements, including public service ads, for suitability, text, and layout.
11. Coordinate with the National Office and advertisers to ensure paid advertisements are current.
13. Arrange for translations as needed.

Bi-monthly *APA Magazine*

1. Solicit, gather or accept articles for publication in the APA Magazine, with an adequate mix of topics of interest.
2. Edit each article to assure brevity and continuity of style.
3. Prepare sections for each issue on training sites and dates, activities of officers of the APA and their committees, announcements of APA training events and the annual seminar, publish professional announcements, and list applicants for membership.
4. Publish proposed constitutional changes far enough in advance to meet the requirements for notice.

Operating Description

1. Attend all meetings of the Board of Directors.
2. Select the printer for all publications.
3. Prepare books, monographs, and pamphlets for the APA as directed.
4. Provide research material in support of the APA amicus briefs, legislative hearings, testimony, policy statements, and public relations. Do the same for affiliated state and regional associations.
5. Appoint Associate Editors and a Managing Editor, with approval of the APA Board. Maintain experts in a variety of topics to review articles in their fields.
6. With the Managing Editor, established closing dates for the magazine and journal.
7. Answer general correspondence sent to the APA, or if appropriate, forward to the National Office or APA officers for a response.
8. Establish fees of periodical subscriptions, back issue sales, books and pamphlets.
9. Other duties at the direction of the APA Board.
Announcement Regarding the 2014 APA Election Schedule

If you are interested in running for office, please take note of the positions being voted this year:

- President Elect (1 year)
- Vice President Government (1 yr)
- Vice President Law Enforcement (1 yr)
- Vice President Private (1 yr)
- Director 2 (2 yrs)
- Director 4 (2 yrs)

Applicants must specify which of the six offices he or she is a candidate. Candidates can only run for one office per year.

Below are important dates to remember

* May 1 – May 30: Period to submit nominations and self-nominations in writing to the National Office. Nominations must include a cover letter specifying for which office the candidate is vying.
* June 14: Last day to submit a candidate statement of up to 500 words for the APA Magazine and on the APA website.
* June 15 – 30: Validation of eligibility for holding APA office.
* July 5: Closing date for the APA Magazine. Candidacy letters published on APA website and the APA Magazine.
* July 12: Email notification of upcoming elections (Ensure your email address is correct with the National Office and APA website.
* July 14 – 20: Electronic elections.
* July 22: Posting of results of the APA elections.
* August 1: Email notification to members of a runoff, if necessary.
* August 4 – August 10: Runoff elections if necessary.
* August 11: Notification to winners. Posting of final election results
* September 11: Swearing in of officers at the Annual Banquet.

For additional information contact George Baranowski at directorbaranowski@polygraph.org
“No matter what instrument you use, we’ll train you. Be assured that our goal is to provide unmatched polygraph training.”

THE ACADEMY OF POLYGRAPH SCIENCE
Contact Us For More Information and Registration!

SIMPLIFYING POLYGRAPH
For Law Enforcement, Government and Private Examiners

2014 Training Schedule

Basic Examiner’s Course
• Fort Myers, Florida: Jan. 6 - Mar. 14, 2014

Post Conviction Sexual Offender Training Course
• Fort Myers, Florida: March 17-21, 2014

Basic Examiner’s Course
• Fort Myers, Florida: Apr. 7 - Jun. 13, 2014

Basic Examiner’s Course
• Fort Myers, Florida: Jul. 14 - Sept. 19, 2014

Post Conviction Sexual Offender Training Course
• Fort Myers, Florida: Sept. 22-26, 2014

Basic Examiner’s Course
• Fort Myers, Florida: Oct. 6 - Dec. 16, 2014

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

TEL: (630) 258-9030
E-mail: Ben@apsPolygraphSchool.com
FAX: (630) 860-9775

Academy of Polygraph Science
8695 College Parkway, Suite 2160
Fort Myers, Florida 33919
www.apsPolygraphSchool.com

Employment

Please see the Careers section of the APA website for the latest job listings.
www.polygraph.org/section/careers

Buy and Sell

For Sale
## Academic Schedule 2014
### Latin American Polygraph Institute

### Professional Course in Forensic Psychophysiology - Polygraph

<table>
<thead>
<tr>
<th>Name of the Course</th>
<th>Dates</th>
<th>Schedule</th>
<th>Duration (in Hours)</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daytime 1 - Bogota</td>
<td>February 10th to May 24th</td>
<td>Monday to Saturday 7:30 to 13:30</td>
<td>560</td>
<td>On-Site</td>
</tr>
<tr>
<td>Daytime 2 - Bogota</td>
<td>May 26th to August 30th</td>
<td>Monday to Saturday 7:00 to 13:30</td>
<td>560</td>
<td>On-Site</td>
</tr>
<tr>
<td>Daytime 3 - Bogota</td>
<td>September 15th to December 20th</td>
<td>Monday to Saturday 7:00 to 13:30</td>
<td>560</td>
<td>On-Site</td>
</tr>
<tr>
<td>Nighttime 1 - Bogota</td>
<td>April 21st to August 18th</td>
<td>Monday to Friday 17:30 to 22:00 (Saturday 7:00 to 13:30)</td>
<td>560</td>
<td>On-Site</td>
</tr>
<tr>
<td>Nighttime 2 - Bogota</td>
<td>August 11th to December 6th</td>
<td>Monday to Thursday 17:30 to 12:00 (Saturday 7:00 to 13:30)</td>
<td>560</td>
<td>On-Site</td>
</tr>
</tbody>
</table>

### Graduate Courses

<table>
<thead>
<tr>
<th>Name of the Course - Certifying Body</th>
<th>Dates</th>
<th>Schedule</th>
<th>Duration (in Hours)</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate course in polygraph teaching - certified by IHP</td>
<td>Friday and Saturday (once in the month)</td>
<td>From 10:00 to 13:30</td>
<td>300</td>
<td>On-Site/Virtual</td>
</tr>
<tr>
<td>Graduate course in polygraph - certified by IAP</td>
<td>Monday to Friday, 18:00 to 21:30</td>
<td>From 10:00 to 13:30</td>
<td>60</td>
<td>On-Site/Virtual</td>
</tr>
<tr>
<td>Graduate course in polygraph - certified by IUP</td>
<td>Tuesday to Friday, 09:00 to 12:30</td>
<td>From 10:00 to 13:30</td>
<td>40</td>
<td>On-Site/Virtual</td>
</tr>
<tr>
<td>Certified course in forensic credibility assessment and polygraph - certified by IUP</td>
<td>Monday to Friday, 09:00 to 12:30</td>
<td>From 10:00 to 13:30</td>
<td>40</td>
<td>On-Site/Virtual</td>
</tr>
<tr>
<td>Graduate course in polygraph teaching - certified by APA</td>
<td>Monday to Friday, 18:00 to 21:30</td>
<td>From 10:00 to 13:30</td>
<td>80</td>
<td>On-Site/Virtual</td>
</tr>
</tbody>
</table>

### Seminars

<table>
<thead>
<tr>
<th>Name of the Course</th>
<th>Dates</th>
<th>Schedule</th>
<th>Duration (in Hours)</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar of lie detection</td>
<td>March 14th</td>
<td>Friday 8:30 to 16:30</td>
<td>8</td>
<td>On Site / Virtual</td>
</tr>
<tr>
<td>International seminar for polygraph experts</td>
<td>May 23rd and 24th</td>
<td>Thursday and Friday 8:30 to 16:30</td>
<td>16</td>
<td>On Site</td>
</tr>
<tr>
<td>Seminar of security in personnel selection processes</td>
<td>June 21st</td>
<td>Friday 8:30 to 16:30</td>
<td>8</td>
<td>On Site</td>
</tr>
<tr>
<td>Seminar regarding how to prevent delinquency inside the organizations</td>
<td>September 20th</td>
<td>Friday 8:30 to 16:30</td>
<td>8</td>
<td>On Site</td>
</tr>
<tr>
<td>XVII annual seminar of the Latin American polygraph association - Cancun Mexico</td>
<td>November 5th to 8th</td>
<td>Wednesday to Saturday 8:30 to 16:30</td>
<td>32</td>
<td>On Site</td>
</tr>
</tbody>
</table>

### Other Courses

<table>
<thead>
<tr>
<th>Name of the Course</th>
<th>Dates</th>
<th>Schedule</th>
<th>Duration (in Hours)</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training in countermeasures detection</td>
<td>April 1st to 8th</td>
<td>Monday to Friday, 18:00 to 21:30</td>
<td>From 10:00 to 13:30</td>
<td>On Site / Virtual</td>
</tr>
<tr>
<td>PSOT advanced course (certified by the APA)</td>
<td>October 6th to 8th</td>
<td>Monday to Friday, 08:00 to 16:00</td>
<td>From 10:00 to 13:30</td>
<td>On Site</td>
</tr>
<tr>
<td>English courses for polygraph examiners</td>
<td>Dates to be confirmed by the Academic Unit</td>
<td>According to schedule</td>
<td>According to schedule</td>
<td>On Site</td>
</tr>
</tbody>
</table>

### Conferences

<table>
<thead>
<tr>
<th>Name</th>
<th>Dates</th>
<th>Schedule</th>
<th>Duration (in Hours)</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>World congress of forensic sciences and polygraph</td>
<td>November 25th to 29th</td>
<td>8:00 to 16:00</td>
<td>32</td>
<td>On Site</td>
</tr>
</tbody>
</table>

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Office in Bogota: Carrera 46 # 93 - 70
PBX: (57)(1) 236 96 22, Ext. 112.
Mobile Phone: 321 449 95 24
Email: comercial2.lpi@gmail.com
www.facebook.com/LatinAmericanPolygraph.Institute
Twitter: @lpi_poligrafiaBogota D.C. Colombia

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W2021781R1
Polygraph Examiner Training Schedule

**Academy for Scientific Investigative Training**

**Basic Examiner Course**
September 15 - November 7 (Philadelphia)

**Advanced Polygraph Course**
July 28 - 29 (Philadelphia)

**Basic PCSOT**
November 10 - 14 (Philadelphia)

**Advanced PCSOT**
July 30 - 31 (Philadelphia)

**Forensic Assessment Interview and Interrogation Seminar**
November 10 - 14 (Philadelphia)

**Academy of Polygraph Science**

**Basic Examiner Course (Fort Myers)**
July 14 - September 19, 2014
October 6 - December 16, 2014

**PCSOT Course (Fort Myers)**
September 22 - 26, 2014

**American International Institute of Polygraph**

**Basic Examiner Course**
May 12 - July 18 (Georgia)
August 25 - October 31 (Georgia)
September 22 - November 28 (South Africa)

**Backster School of Lie Detection**

**Basic Examiner Course**
June 2 - August 8, 2014 (Denver, CO)

**Gazit International Polygraph School**

**Basic Examiner Course**
January 26 – April 3, 2014

**Marston Polygraph Academy**

*(all listed courses taught in San Bernardino, CA)*

**Basic Polygraph Instruction (400 hours)**
July 7, 2014 to September 12, 2014
October 6, 2014 to December 12, 2014

**PCSOT Basic Course (40 hours)**
June 16, 2014 to June 20, 2014
September 15, 2014 to September 19, 2014

**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.
The 2014 APA Seminar in Seattle

By Gordon Vaughan, Esq.
APA General Counsel

The 49th APA Annual Seminar and Workshop this year is at the Sheraton Seattle Hotel in Seattle, Washington. This is the first occasion the APA has brought the seminar to Seattle and it is a venue you should not miss. The Sheraton is a beautiful hotel, located at 1400 Sixth Avenue, in the heart of downtown Seattle. In addition to the excellent training from a great group of speakers, the hotel is within a short walk to the world famous Pike Place Market, with more than 200 year round businesses including restaurants, craftspeople, farmers market, street performers, and musicians. Also nearby is the Seattle Aquarium, Art Museum, Seattle Space Needle, the Great (Ferris) Wheel and Seattle’s China Town. There are dozens of nearby restaurants. Safeco Field, the home of the Seattle Mariners, is also close by and they will be in town the week of the seminar. (The APA has purchased discounted tickets for a Tuesday night game.) The waterfront area is also close by with many restaurants, shops, piers, ferries, and boat tours of Puget Sound.

The Sheraton Seattle Hotel is easily accessible from Seattle’s Sea-Tac Airport. There are frequent airport shuttle services provided by Shuttle Express Downtown Airporter Service, various taxi services and Seattle’s local transit system including their Light Link. More information on the transportation from the airport to the hotel can be found at:

http://www.starwoodhotels.com/sheraton/property/area/transportation.html?propertyID=460

As has been the case in the last several seminars, Spanish interpretation services will be provided for all general sessions and at least one of the breakout sessions. This year the APA will also be providing a seminar mobile app which will contain the speaker bios and materials, speaker surveys, hotel information and attractions, and much more. Further information will be provided regarding downloading this app prior to the seminar.

All of the APA blocked rooms are at the prevailing government per diem of $152 per night. Such room rate is significantly discounted from the standard room
rate and includes in room internet and complimentary fitness center for all attendees. As of the time of my writing this article our room block was 60% filled and we expect to quickly fill the allotment of 400 rooms for peak nights. While there are hotels nearby to the Sheraton the APA does not have any overflow commitments. Please do not, however, reserve a room until you are confident that you will attend as this will decrease the inventory for members who are trying to secure room reservations.

See you in Seattle!

TUESDAY NIGHT SEPTEMBER 9, 2014

SEATTLE MARINERS VS HOUSTON ASTROS

TICKETS $8

GAME TIME 7:10pm

TICKETS ARE LIMITED AND MUST BE PURCHASED IN ADVANCE*
TRANSPORTATION TO THE STADIUM IS ON YOUR OWN
(approx. 2.5 miles from hotel)

CONTACT THE APA NATIONAL OFFICE TO GET YOUR TICKETS TODAY!!

*TICKETS WILL NOT BE AVAILABLE AT REGISTRATION
ADVANCED RESERVATION REQUIRED
AMERICAN POLYGRAPH ASSOCIATION
SHERATON SEATTLE HOTEL, 1400 6TH AVENUE, SEATTLE WA 98101
(All room reservations must be made individually through the Hotel's reservation department)
888-627-7056 – In house 206-447-5547

APA FED ID # 52-1035722
Plan now to attend the APA 49h Annual Seminar/Workshop,
SEPTEMBER 7-12, 2014
Room rate: $152.00, SINGLE/Dbl occupancy, plus taxes
(currently 15.6% tax, PLUS $2.00 TIA) SELF PARKING ONE BLOCK
AWAY.

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.

CUTOFF DATE for hotel reservations is 08/15/14 or until APA’s room allotment is fulfilled. Number of rooms is limited. Individual departure dates will be confirmed upon check-in. (72 HOUR CANCELLATION)

Acting Seminar Chair: Lisa Jacocks – 800/272-8037, 423/892-3992 FAX: 423/894-5435
Seminar Program Chair: Michael C. Gougler-512-466-0471

Registration Hours – Sunday, 9/7/14 (10:00 am-6:00 pm)
On-Site–Monday, 8/8/14 (8:00 am -12:00 Noon)
Seminar Sessions–Monday-Friday, 8/7/14 – 8/12/14

Complete the form below, attach check, VISA, MC or AE information payable to the APA and mail to:
APA National Office, PO Box 8037, Chattanooga, TN 37414-0037
Or FAX to: 423/894-5435
to arrive no later than 08/20/14 for applicable Discount. Payment information and registration received after 08/20/14 will be charged the on-site fee.

NAME__________________________ BUSINESS PHONE__________________________
ADDRESS________________________________________ E-MAIL ______________________________
CITY/STATE________________________________________ ZIP_______________________________
NAME OF GUEST(S)__________________________ CHILDREN/AGES________________________
NAME BADGE (CALLED BY)________________________ GUEST (CALLED BY)________________________
PRE PAID BY AUGUST 20, 2014
$350 – Member/Applicant _____ $475 – Member/Appl W/Guest _____
$350 – NPEA Members _____ $475 – Member/Appl W/Guest _____
$475 – Member/Appl W/Guest _____ $525 – Member/Appl W/Guest _____
$125 – Additional Guest _____ $175 – Additional Guest _____
$500 – Non-Member _____ $550 – Non-Member _____
$625 – Non-Member W/Guest _____ $675 – Non-Member W/Guest _____

FEE RECEIVED AFTER AUGUST 20, 2014
$400 – Member/Applicant _____ $400 – NPEA Members _____
$525 – Member/Appl W/Guest _____ $525 – Member/Appl W/Guest _____
$525 – Member/Appl W/Guest _____ $550 – Non-Member _____
$675 – Non-Member W/Guest _____ $675 – Non-Member W/Guest _____

ADDITIONAL $50.00 FOR WALK-INS
*GUEST FEE includes APA SPONSORED EVENTS: Reception, Guest Breakfast and Banquet.
*YOUR NAMETAG IS YOUR ADMISSION TICKET TO ALL EVENTS AND ACTIVITIES. PLEASE WEAR IT AT ALL TIMES DURING THE CONFERENCE.

DATE OF ARRIVAL__________________________ DATE OF DEPARTURE__________________________
VISA ( ) MC ( ) AE ( )__________________________ (CVV2) __________ EXP: ________
(CVV2 is a 3 digit number found on the back of your VISA or MC card or a 4 digit number on the front of the AE).
SIGNATURE__________________________ 2014
American Polygraph Association

49th Annual Seminar/Workshop
September 7-12, 2014
Sheraton Seattle Hotel

Michael C. Gouglar
Program Chair
2014

ACT WITH INTEGRITY
WELCOME

Group Meetings, Breakfasts and Luncheons

SUNDAY, Sep. 7, 2014  1:00 pm - 5:00 pm  School Director’s Meeting

MONDAY, Sep 8, 2014  10:00 am – 11:30 am  Spouse/Guest Brunch
                 12:00 noon – 1:15 pm  Past Presidents’ Luncheon

(Open to those in the described groups – check at registration for locations.)

Seminar & Workshop Schedule

<table>
<thead>
<tr>
<th>SUNDAY, September 7, 2014</th>
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<tbody>
<tr>
<td>Pre Seminar Workshop - CLASSROOM A (Español)</td>
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<tr>
<td>1:00 – 3:00 pm</td>
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<tr>
<td>A PRACTICAL APPROACH TO TEST QUESTION CONSTRUCTION</td>
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<tr>
<td>STEVE DUNCAN GEORGIA STATE PATROL</td>
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SUNDAY EVENING EVENT

APA WELCOME RECEPTION  
6:30 – 8:30 PM
# OPENING CEREMONIES

<table>
<thead>
<tr>
<th>Event</th>
<th>Performer/Chair</th>
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<tbody>
<tr>
<td>Call to Order</td>
<td>Charles E. Slupski, President</td>
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<tr>
<td>Master of Ceremonies</td>
<td>Michael C. Gougler, Director, 2014 Seminar Program Chair</td>
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<tr>
<td>The National Anthem</td>
<td>Clayton Powell, Seattle PD</td>
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<tr>
<td>Presentation of Colors</td>
<td>Seattle Police Dept</td>
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<td>Pledge of Allegiance</td>
<td>Barry Cushman, Chairman, BOD</td>
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<tr>
<td>Taps</td>
<td>Richard Pasciuto</td>
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<tr>
<td>Welcome from</td>
<td>Steve Norton, President NWPA</td>
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<td>Invocation</td>
<td>Barry Cushman, Chairman, BOD</td>
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<tr>
<td>Welcome Seattle, Washington</td>
<td>Chief John Batiste, Washington State Patrol</td>
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9:00 – 9:15 Break Sponsored by

9:15 – 12:00 EXTENDED POLYGRAPH TESTING – CHARLES E. SLUPSKI, APA PRESIDENT

12:00 – 1:00 Lunch (On Your Own)

1:00 – 3:00

ETHICS

MILTON O. “SKIP” WEBB
APA PAST PRESIDENT

2:45 – 3:00 Break Sponsored by

3:00 – 5:00

ETHICS CONTINUED

GORDON L. VAUGHAN, ESQ.
APA GENERAL COUNSEL

RAYMOND I. NELSON
APA PRESIDENT ELECT
### TUESDAY, September 9, 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Classroom A (Español)</th>
<th>Classroom B (Español)</th>
<th>Classroom C</th>
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<tbody>
<tr>
<td>8:00 – 12:00</td>
<td>ENHANCING PRETEST INTERVIEW EVALUATION</td>
<td>8:00 – 10:00 STIPULATED POLYGRAPHS</td>
<td>8:00 – 12:00 CRIMINAL SEXUAL BEHAVIOR: PATTERNS AND TYPOLOGIES</td>
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<tr>
<td></td>
<td>PATRICK O’BURKE APA DIRECTOR</td>
<td>GORDON L. VAUGHAN, ESQ. APA GENERAL COUNSEL</td>
<td>DOUGLAS A. ORR SPOKANE POLICE DEPARTMENT</td>
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<tr>
<td>9:45 – 10:00</td>
<td>Break Sponsored by:</td>
<td>10:00 – 12:00 DIRECTED LIE SCREENING TEST</td>
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<td>12:00 – 1:00 Lunch (On Your Own)</td>
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<td></td>
<td>APA ANNUAL BUSINESS MEETING</td>
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<td>2:30 – 2:45 Break Sponsored by:</td>
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<td>2:30 – 4:00 POLYGRAPH INSTRUMENTS WORKSHOP</td>
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<td>2:30 – 2:45 Break Sponsored by:</td>
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<td>LIMESTONE TECHNOLOGY</td>
<td>LAFAYETTE INSTRUMENT</td>
<td>STOELTING COMPANY</td>
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<td></td>
<td>Jamie Brown</td>
<td>Chris Fausett</td>
<td>Guillermo “Gil” Witte</td>
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### TUESDAY EVENING EVENT

**SEATTLE MARINERS VS. HOUSTON ASTROS**

**TICKETS $8**

DEADLINE TO ORDER TICKETS IS August 22 Tickets WILL NOT be available at registration

GAME TIME 7:10 PM
Transportation on your own
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<th>Time</th>
<th>Classroom A (Español)</th>
<th>Classroom B (Español)</th>
<th>Classroom C</th>
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<tr>
<td>8:00 – 12:00</td>
<td>SETTING COMPARISONS</td>
<td>PCSOT: TARGET</td>
<td>STOEKTING INSTRUMENTS</td>
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<td></td>
<td>CHAD RUSSELL TREASURER</td>
<td>SELECTION &amp; QUESTION</td>
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<td>CHIP MORGAN</td>
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<td>9:45 – 10:00</td>
<td>Break – Sponsored by</td>
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<td>12:00 – 1:00</td>
<td>Lunch (On Your Own)</td>
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<td>1:00 – 5:00</td>
<td>MANAGING COUNTERMEASURES</td>
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<td>NAS UPDATE</td>
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<td></td>
<td>WALT GOODSON VP LAW ENFORCEMENT</td>
<td></td>
<td>BARRY CUSHMAN</td>
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<td>APA CHAIRMAN BOD</td>
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<td>GEORGE BARANOWSKI APA DIRECTOR</td>
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<td></td>
<td>MANAGING COUNTERMEASURES</td>
<td>CASE STUDY- THE INCREDIBLE USE OF FORENSIC HYPNOSIS AND POLYGRAPH</td>
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<td>WALT GOODSON VP LAW ENFORCEMENT</td>
<td>GEORGE BARANOWSKI APA DIRECTOR</td>
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<tr>
<td>8:00 – 12:00</td>
<td>INTERVIEW &amp; INTERROGATION – IS IT ART OR IS IT SCIENCE? RAYMOND I. NELSON PRESIDENT ELECT</td>
<td>PCSOT</td>
<td>QUALITY ASSURANCE/QUALITY CONTROL MILTON O. &quot;SKIP&quot; WEBB APA PAST PRESIDENT</td>
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<td>DONNIE W. DUTTON VP GOVERNMENT</td>
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<td>10:00 – 12:00 APPLIED PHYSIOLOGY JOEL REICHERTER UNIVERSITY POLYGRAPH</td>
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<td>9:45 – 10:00</td>
<td>BREAK – SPONSORSHIP</td>
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<td>12:00 – 1:00</td>
<td>Lunch (On Your Own)</td>
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<td>1:00 – 3:00</td>
<td>SCAN IN GENESIS AVINOAM SAPIR LSI LABORATORY FOR SCIENTIFIC INTERROGATION</td>
<td>PCSOT</td>
<td>EFFECTS OF EXAMINER PERSONALITY, TRAINING AND EXPERIENCE ON ACCURACY OF DETECTION OF DECEPTION V. CHOLAN MINDEF SCHOOL DIRECTOR</td>
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<td>2:45 – 3:00</td>
<td>BREAK – SPONSORSHIP</td>
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<td>3:00 – 5:00</td>
<td>EVIDENCE BASED PRACTICE AND THE MGQT RAYMOND I. NELSON APA PRESIDENT ELECT</td>
<td>PCSOT</td>
<td>LEARNING MORE ABOUT WHY POLYGRAPH WORKS BILL BROWN FBI RETIRED</td>
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**6:30 pm BANQUET**

**KEYNOTE SPEAKER**

**CONGRESSMAN TED POE TEXAS**
### FRIDAY, September 12, 2014

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<thead>
<tr>
<th>Time</th>
<th>Classroom A (Español)</th>
<th>Classroom B (Español)</th>
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<tr>
<td>7:30 AM – 8:00 AM</td>
<td>Break Sponsored by:</td>
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<td>8:00 – 10:00</td>
<td>INTERNAL AFFAIRS POLYGRAPH EXAMINATIONS</td>
<td>PCSOT SUPERVISION AND THE CONTAINMENT MODEL</td>
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<td>DAVE LAWRENCE SPECIAL AGENT-SLED</td>
<td>KETH HICKS, PhD</td>
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<td>PCSOT</td>
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<td>9:45 – 10:00</td>
<td>Break – Sponsored by:</td>
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<td>10:00 – 12:00</td>
<td>INTERVIEW TECHNIQUES THAT WORK, FROM ROADSIDE TO POLYGRAPH SUITE</td>
<td>10:00 – 12:00 SAS PATTERN SEAT ACTIVITY SENSOR</td>
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<td>STEVE DUNCAN GEORGIA STATE PATROL</td>
<td>ESSAM ELDIN PRIMARY INSTRUCTOR ASIT</td>
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<td>12:00 – 1:00</td>
<td>Lunch (On Your Own)</td>
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<td>1:00 – 3:00</td>
<td>TECHNICAL POLYGRAPH QUESTIONS</td>
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<td>BARRY CUSHMAN APA CHAIRMAN BOD</td>
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<td>3:00</td>
<td>(upon conclusion of presentation in classroom A)</td>
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<td>CLOSING REMARKS</td>
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<td>RAYMOND I. NELSON APA PRESIDENT</td>
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<td></td>
<td>PCSOT – QUALIFIES FOR PCSOT CONTINUING EDUCATION</td>
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Board of Directors’ Reports

**Raymond Nelson**  
**President Elect**

APA members,

Time must be speeding up, as 2014 is nearly half completed. There is no time like the present to think ahead about the APA seminar in Seattle. As always the hotel is terrific, and the location is great for a conference and some recreation too. Activity at the Board of Directors has been non-stop in preparing for this event, and Director Mike Gougler has shown his ability to organize a great conference. Among the other projects and issues in progress at the APA is the organization of another APA conference in the Asia-pacific region. We hope that all APA members and other examiners can attend and make use of the opportunity to learn from each other and build professional relationships that will enable us to meet future challenges with even greater wisdom and effectiveness.

One of the recent events in which myself and other Board members participated was a credibility assessment summit held during April, by the Texas Department of Licensing and Regulation. The purpose of the summit was for the members of the licensing board and advisory committees to become informed about the status of technologies and methods available today for credibility assessment. Most of the participants were not from the APA or the polygraph profession, and it was clear that there is a market interest in alternative technologies. Part of that interest is fueled by a lack of information about modern scientific polygraph testing, and it was apparent that the polygraph profession continues to experience some vulnerability from mis-information and mis-perceptions. Vulnerability also exists in the form of a public desire for a more scientific test, and the mistaken belief that polygraph has already peaked in its application or use of scientific principles to increase test effectiveness. It is my view that polygraph has not yet peaked. We are in fact not yet making optimal use of all of our knowledge and resources. Instead, we at times adhere stubbornly to tradition simply because of discomfort with change or the inconvenience and
hassle of learning new things. Or, we stick conservatively to what has worked rather well in the past. We ignore new information while finding simple comfort in our present level of understanding as satisfactory to ourselves if not others.

To many of us, who have worked for so many years interviewing and extracting information from both questionable and respectable characters in field settings of all types, concern for the technology itself is a secondary concern when compared to the importance of skill and professionalism in the interviewing context. Technology is probably also secondary to the importance of subject-matter expertise – simply knowing enough about the population and domain of interest that we know how to work with people, including criminals, law enforcement applicants, convicted offenders, and personnel who work for government agencies or government contracts. At the same time, legislators, policy and personnel administrators, and members of the public continue to want to perceive the technology itself as the critical factor. For this reason, there is an obvious strong public and market interest in alternative technologies for credibility assessment. It is my observation that when people imagine a replacement for the polygraph, they imagine an automated test presentation and automated analysis of the test result.

This dichotomy illustrates two strategic needs: 1) the need to make more effective use of science and technology, and 2) the need to educate the public and referring professionals about the central importance of the professional polygraph examiner as both a subject matter expert and human expert in the interviewing context. In this way we can provide a scientific method of credibility to those who will increasingly want to see effective technology solutions involving both data acquisition and data analysis, and also continue to provide the most important quality that technology will not likely ever replace – the ability to work the human discussion and information context.

So, while we polygraph professionals tend to view ourselves as the most important variable in the polygraph testing context, those outside the polygraph profession may tend to view the situation with a desire to reduce the role of the expert polygraph professional. To me this illustrates both a vulnerability and an opportunity – and highlights our need to properly educate both ourselves and the public. The task of educating ourselves makes us better able
to make use of evidence-based scientific methods to optimize and demonstrate the effectiveness and value of our work, and also makes us less likely to cling to tradition out of nothing more than our own fear and insecurity. Education of the public will serve to insulate both them and us from the tendency for emerging technologists to prey on public sentiment and naïve expectations regarding the intensity and complexity of needs related to technology, skill, and professional infrastructure necessary to accomplish the accurate discrimination of deception and truth-telling in practical field settings.

The APA and the polygraph profession presently provide the most advanced, scientific, and professional solution to credibility assessment needs. We showed the Texas TDLR that the polygraph profession offers the only form of technology and professional work that is presently prepared to account for itself as a scientific technology, including published descriptions of the psychological foundations, physiological basis of recorded data, signal processing model, published and replicated correlation between recorded data and the criterion states of deception and truth-telling, the use of published structural equation models and normative data to quantify the level of confidence and degree of uncertainty of individual test results that may become influential in the context of risk assessment and risk management decisions whether in the criminal investigation or screening context. It was a proud moment for the profession to draw such obvious distinction between ourselves and other technologies. It was a testament to the work and achievement from our emphasis on validated techniques and evidence-based practices. At the present time, none of the other technologies displayed in Texas were prepared to do this. Regardless, both the polygraph profession and the public are at risk for distraction and disruption due to the intensity of desire for scientific and technology solutions for credibility assessment. Purveyors of ineffective technologies, who may not be concerned with effectiveness beyond the role of prop or bogus-pipeline, will stand to benefit regardless of whether they are unscientific.

At the same time, there are some forms of technology under development by knowledgable, skilled scientific and academic researchers that are expected to achieve both scientific objectives and satisfy the desire for increased automation of the data acquisition and data analysis
tasks. What those technologies may not be prepared to offer may be the single thing that differentiates the most important value offered by the APA and polygraph profession: human expertise in the development of information in the interview context. Regardless, scientific technologies that begin to work effectiveness to discriminate deception and truthtelling will stand to benefit regardless of their inability to augment their value with effective human interviewing.

It was an honor to represent the profession at the Texas summit and it is a continuing honor to represent and serve the profession at the Board of Directors and Research Committee. Despite this recent success, as always, there is more work to do. Some of that work involves technology and research. Other work remains to be done to ensure that our professional practice standards are consistent with the best available data and evidence. This will, from time to time, involve the adjustment or modification of the way we describe or structure our field practices. And some of the important work involves maintaining our professionalism through continuing education. If we neglect to develop and demonstrate a continuously increasing and effective use of technology, and if we neglect to develop our understanding - and the public’s understanding - of the importance of the highly skilled human expert who can make effective use of modern scientific polygraph technology, then we increase our vulnerability and risk for disruption.

As practical field testing professionals, participation in a strong professional association, and participation in continuing education is the best form of action to ensure continued effective use of our human expertise long into the future. I hope to see you in Seattle.

Walt Goodson
Vice President, Law Enforcement

Last week, I was a part of the record attendance at the American Association of Police Polygraphists (AAPP) Conference in Henderson, NV. I was told there were around 700 examiners in attendance. I’m proud to be a part of the AAPP and I admire how well their board of directors works together to organize and execute a first class conference. I was also informed that in my own back yard, the Texas Association of Polygraph Examiners had record attendance at their last conference and the upcoming Texas Association of
Law Enforcement Polygraph Investigators anticipates record attendance for their seminar next month. This is all good news that both the polygraph profession and the economy are thriving and there is a hunger to develop ourselves professionally.

At the AAPP seminar, I was honored to present courses on both the Directed Lie Screening Test (DLST) and the Empirical Scoring System (ESS) and I was encouraged by the attendance of both of these courses. I’ve mentioned before that my initial polygraph training mirrored the federal polygraph program, so it was very difficult for me to look at a new approach when what I did already worked. However, I’m glad I did because these techniques made both my department and me even better. The DLST and ESS are two of three major additions we have made to my department’s polygraph program over the past several years and these techniques have added the greatest benefit to our program since we put our analog instruments in a museum. Thanks to everyone who attended these courses.

As far as training goes, the Seattle seminar is scheduled for September 7 to 12, 2014 and Program Chair Mike Gougler has again put together a strong lineup of instruction as well as some quality social events. It’s of course my opinion that social events are critical to a successful conference as concepts are taught in the classroom but they are comprehended during discussions with our peers. For those of you who have not stayed in the Seattle Sheraton Downtown Hotel, it’s upscale and a true value at the government rate. I like the fact that it is in the heart of downtown and there are hundreds of places to eat, shop, and explore within a few contiguous blocks of the hotel so there is no need for a rental car. I hope to see you there.

As you are all aware, we lost Ms. Robbie earlier this year and it is hard to move forward after losing both your heart and soul. Robbie was indeed one of those rare persons who made me smile every time I was around her so she will be missed. With our loss, President Slupski has been working diligently to keep business moving forward at the National Office. He proposed Lisa Jacocks be appointed to the National Office Manager and a part time assistant be hired to assist with Lisa’s duties. These motions were both passed by the APA Board of Directors at our meeting last month in Chicago. Lisa has demonstrated dedication to the Association over the past few years as Robbie’s assistant and there is no question
she will be an asset to the APA for years to come. Lisa also brings innovation to the office which will be instrumental in the coming years to improve service to our membership.

I do feel strongly that service to the membership is one area where there is room for improvement and some of those areas were addressed at our business meeting. One improvement addressed was upgrading our website to allow for easier access to information and online payments of conference and membership fees. A motion to improve the website by Vice President O’Burke failed because of cost but it started a healthy discussion of the need to loosen the purse strings to improve the website and customer service.

I’m very pleased to be a part of a board of directors that is very conservative when it comes to spending the association’s money. However, the APA is financially stable and it might be time start spending money on the membership through improved services. If you have ideas I would love to hear them so email me and visit with me in Seattle if you have any suggestions.

Some ideas discussed are reducing or waiving membership fees for our most tenured members, additional food, beverages and social activities at annual seminars, hiring an executive director, and website improvements. Vice President O’Burke has been pushing for improvements to the website and I agree with him because in today’s world a website is the face of the organization and we all know in our business how important first impressions can be. So look for a continued push for improvement to the website and National Office.

Thanks again for your continued professionalism. Remember that professionalism is not what you do. It’s how you do it. Have a great summer!

J. Patrick O’Burke
Vice President, Private

We have just recently returned from the APA Board meeting in Chicago, which is to be the site for the 2015 Annual Conference. The location for the seminar will be at the Palmer House Hotel, which is rich in history and location. I believe you will find this an interesting location to visit in 2015. Before you get too excited about Chicago, I am hoping that you are also planning to attend the seminar in Seattle, which is coming up very quickly. I would not waste any time in making a
commitment to attend so that you can secure your hotel reservations. Hotel space at the host hotel will be a factor as the APA continues to attract examiners to the annual seminars at a record pace.

I will also make this brief note to let you know that I am heading a committee to get an APA website in place that will better provide for member needs and keep the public informed about polygraph. This is a big challenge and one that needs to be approached with some degree of forethought to ensure we build what will serve the needs of our organization and profession. I am hoping for improvements in time for the seminar in Seattle, so stay tuned.

The most important issue in this article, however, is one that is a mystery for me. I am hoping that the membership can help me solve this one as it has me puzzled. Elections are once again coming up this summer for APA Board positions. The Board has previously created an on-line capability to vote that takes all of about five minutes. The process is simple and easy and allows your vote to be counted even when you are unable to attend a conference, where the vote used to be taken. However, this process has seen little limited interest from the APA membership with only a fraction of our membership voting in on-line elections. This is the mystery that really has me puzzled.

In the next few weeks, those seeking a Board position will submit papers regarding why they are interested in office. Please take the time to look them over and then ask questions. Ask yourself if this is the person who will represent the polygraph profession best. Ask yourself if the positions embraced by the candidate are meeting your needs. Contact the candidate and ask if positions that are not discussed are those that are important to you. No one person can ever hold the same ideas that every constituent possesses, but that candidate for the position that is being sought should be leading in the direction of the majority wants and needs.

Some members may not be that interested in the board member elections for a variety of reasons; however, I believe all members are interested in what actions the Board would take. Please look to see if the Board candidates are driving in the same direction that you believe is important. If you are not that interested in the selection of candidates, then please encourage those to run that you believe
are qualified to lead the APA in a positive direction. If you ask questions that do not satisfy you, then ask those to run for office that will meet your needs.

The membership of the APA is the life blood of the organization and is what sustains us. The Board should be a representation of our membership. I would encourage you to be aware of the upcoming elections, be informed of the candidates and then take the time to vote. I look forward to seeing you in Seattle and I am keeping my fingers crossed, and hopefully registering and paying online for the conference!

**Quotables**

What lies behind us and what lies ahead of us are tiny matters compared to what lies within us.

- Henry David Thoreau
Does the polygraph detect lies? Is a lie a physical thing that can be measured? What does the polygraph measure? Is there any physiological response that is uniquely associated with lying? Is the test ever wrong? Why is it called a lie-detector test?

Lies and deception are not, of themselves, a form of physical substance, but are instead a form of action, event, or behavior for which overt or subtle physiological changes can be observed and recorded. Polygraph testing is a process of recording and quantifying responses to stimulus questions to which the examinee may be answering truthfully or untruthfully. A perfect test result can be achieved only through the identification of some unique physical phenomena that offer perfect correlation with the act of lying or deception, and also perfect negative correlation with all other other human activity. Such a test would be deterministic in that there would be only one possible outcome for which human behavior, human choice, and random variance would be expected to have no effect on the test result. Such a deterministic test is not
possible for two reasons. Firstly, because a successful testing outcome depends minimally on the choice to cooperate with testing, and secondly because there is no form of physiological response that is uniquely associated with any human activity. For this reason, scientific test results for most human phenomena are probability statements, and the purpose of a scientific test is to quantify the degree of uncertainty associated with a test result.

Polygraph testing works in the same manner as other scientific tests, by identifying recordable and measurable physiological responses which serve as proxy signals that are correlated with the difference in responses to test stimuli, and responses to comparison stimuli, as a function of deception and truth-telling. Like other scientific test methods, polygraph test methods consist of multiple different proxy signals. Standardized test administration and scoring procedures are intended to ensure that data from multiple different signals are aggregated in mathematically optimal ways.

Tests are said to be normed or norm-referenced when the results of individual exams are compared with data from a normative reference sample. To do this, test data from sampling groups of cases are first aggregated together to construct normative reference distributions that describe our knowledge about the phenomena being tested. In the case of polygraph testing, the reference distributions describe our knowledge about the location, variance and distribution shape of the scores normally observed among groups of deceptive and truthful persons.

Polygraph test results for an individual case can be compared to the normative reference distributions to calculate the statistical likelihood or probability of error associated with a conclusion that the test data come from a person who belongs to the population of persons represented by one of the normative reference groups. Test results can be said to be statistically significant when the probability of error (p-value) is less than a previously stated tolerance for error (alpha level). Probabilities of error and alpha levels can be expressed in terms of test scores and cutscores, and can also be transformed to other forms such as odd-ratios, risk ratios, confidence levels, or likelihood statistics. In this way, the polygraph is a test of the probability of error associated with a categorical conclusion that the examinee belongs to the population represented by the normative reference data for deceptive or truthful persons. For convenience, the polygraph test is often referred to simply as a lie-detector test.
New Jersey Polygraphists, Inc. is New Jersey’s only professional polygraph association. It was formed by the late Richard O. Arther in 1964 to create a forum for polygraph examiners to share information, review charts, build camaraderie, receive in service training and interact in a social setting. Now in its 50th year New Jersey Polygraphists has 45 members from municipal, county and state law enforcement, private practice and the state Public Defender’s Office.

NJP members have extremely diverse polygraph training backgrounds. Members have been trained at schools including Mr. Arther’s National Training Center, the Backster School of Lie Detection, The Keeler Polygraph Institute, the Pennsylvania State Police/Harrisburg Area Community College Polygraph Institute, the Maryland Institute of Criminal Justice and others. For most of its existence NJP’s annual training seminars featured speakers and topics that were almost exclusively related to interviewing and interrogation. Those seminars were well attended by both polygraphists and New Jersey’s non-polygraph law enforcement community. It was a successful model that enhanced personal and professional relationships along with interviewing skills. That model did little, however, to enhance the polygraph skills of NJP members. As a result examiners continued to practice the methodologies they learned in their polygraph training school. Examiners often did not understand the test format used by other examiners which led to disagreements in chart interpretation. For example, one examiner may have evaluated pneumograph “stair casing” as deception, another ignored it, while still another determined it was a countermeasure.
Approximately ten years ago however, under the leadership of then President Jerry Lewis, NJP members decided that a change was necessary and drastic change at that. Examiner disagreement was widespread. Examiners did not understand test formats they were not trained in, especially when those formats had complex evaluation rules. There was no consensus on what criteria constituted a reaction. Many examiners did not practice numerical scoring. Others would refuse to provide their score sheets. Examiners were giving opinions on charts that could not be supported by research. It was common to have one examiner say, “I wouldn’t have passed the guy,” without providing an explanation why. Having examiners from diverse training backgrounds only exacerbated the problem.

After much discussion, some of it heated, members agreed that the only future for polygraph lay in science and research. NJP members then took the brave step of hearing, accepting and then embracing the growing body of new polygraph research being produced by the University of Utah researchers, the (then) Department of Defense Polygraph Institute and others. Interviewing as a seminar topic was replaced by lectures from speakers including Dr. Charles Honts, Dr. John Kircher, Dr. David Raskin, Ray Nelson, Joel Reicherter and Donald Krapohl. For many members it was their first exposure to a different test format. When the Empirical Scoring System was introduced yet another challenge had to be faced.

As members’ collective and individual knowledge increased they became more confident that they could survive in the brave new world of the 21st century polygraph profession. Make no mistake, there were and continue to be occasional missteps. Old habits die hard. Science, at least for the layman, is sometimes hard to understand. The research that forms the basis of polygraph is less exciting to
see and hear at a seminar than a videotape of a suspect confessing to a serious crime. P-value (alpha) is not something that instantly lodges in one’s understanding and memory. However NJP members have stuck to their commitment. They stopped using outdated and non-validated test formats and agreed as an association to run only Utah or Federal Zone test formats and to score charts using the Empirical Scoring System.

Today at every NJP semi-monthly meeting a member is assigned to make copies of a set of polygraph charts. The charts are distributed to each member in attendance. Going around the table members take turns scoring one pair of relevant and comparison questions using the ESS. Members then discuss the scorer’s decision and a consensus is reached based strictly on ESS scoring rules. Over time even the most stubborn examiners have agreed that standardizing test formats and chart interpretation rules provided a huge benefit to both the profession and the general public. They also agree that using a simplified scoring system like the ESS has vastly reduced the disagreements that were so common in the past.

NJP recently formed a Quality Control Committee comprised of three annually rotating members with at least one police and one private examiner participating. The Committee is available on a voluntary basis to review charts where there is a professional disagreement regarding interpretation. Upon request the Committee will meet, review and score the charts using ESS then render a collective opinion. Requests for review are accepted from members and non-members alike as well as from prosecuting attorneys, judges or other entities.

There are still many challenges facing NJP’s examiners. While the Empirical Scoring System has provided a common language for evaluating charts, members still occasionally struggle with the statistical concepts. Older folks definitely learn more slowly than younger folks. But our chart scoring sessions invariably provoke thoughtful discussions about timeliness of reactions, countermeasures and other issues. NJP members are impatiently waiting for the researchers to provide more guidelines on these issues.

NJP members are now working on transitioning away from providing opinions of truthfulness or deception and replacing those opinions with scientifically supported probabilities of truthfulness or deception. This will take some training not only of examiners but of the legal and law enforcement communities and the general public.
Polygraph is often referred to as an art rather than a science. Many examiners take pride in their role as polygraph artists. However our common goal as polygraph examiners should be recognition by both the courts and the court of public opinion that we are on par with the other professions including medicine, psychiatry and psychology. To accomplish that goal we need to put egos and the past aside and look at the bigger picture. From the National Academy of Science report on the forensic sciences we know that, “in my opinion,” and “based on my training and experience,” are phrases of the past. Science and error rates are the future of all forensic sciences including polygraph. The examiners of New Jersey Polygraphists urge our colleagues to join us on this walk into the future.

The mission of New Jersey Polygraphists is:

To improve the polygraph profession by bringing together examiners from across the state,
And through training and education learn the most scientifically accurate and reliable ways to administer polygraph examinations,
So that all state examiners are using the same, research supported methodologies and best practices,
Thereby providing the public with the best polygraph services possible.
The significance of Evidence Based Practices has been well pointed out to us as examiners and the scientific field of polygraphy in articles and presentations often provided to us by those recognized experts of our profession, Ray Nelson and Mark Handler. However, I wanted to share with you some information I had just come across in an article in an ASTM publication that echoes the importance of these practices that both Nelson and Handler and the APA have been expounding. This recent publication described a new proposed ASTM International standard in the works that will serve to provide standards and studies as well evidenced based procedures to be used by professionals in conducting forensic analyses determination, testing standards, and case reviews of scientific forensic studies. This no doubt will include polygraph. An interesting theme of this standard is that it apparently wants to provide scientific and forensic examination procedures not only to the forensic practitioner, but also to adjudicators and surprisingly, the general public as well. (I think that when this standard obtains approval, it may very well cause some major problems to those who conduct those day-time television talk show polygraph examinations).

This standard is being developed by ASTM Committee E30 on Forensic Sciences and is currently designated as WK23009: “Guide for Case Review of Forensic Examination.” This article was described by a member of this committee and independent forensic scientist, John DeHann, Ph.D., who wrote, “This guide presents that the reports of all forensic examiners, whether they are criminalists, chemists, engineers, document examiners or from other specialties (like polygraph, ballistics, DNA, fingerprints, blood splatter evidence, etc.,) are subject to review both for administrative purposes or technical review.” He explained further that this standard will provide current information on the nature of reviews, the materials required and the methods by which they should be carried out, in the words of our profession, “Validated
Polygraph Techniques” and “Evidence Based Practices.” It’s no doubt that the most influential body criteria in this regard will be those published polygraph standards already in place through the efforts of ASTM Committee E52 on Forensic Psychophysiology.

As a quick review of the ASTM process, developing a published standard begins with establishing the concept into a proposal standard which is discussed, worked upon in an initial body of members and then presented to members of that entire committee to be worked on, discussed, modified, condensed or expanded, and when it reaches the point of committee member satisfaction as shown by a majority vote of the entire committee, it receives a standard designation.

In regard to this proposed standard, forensic scientists, technicians, engineers, examiners as well as legal counsel will be able to use this standard as a guide, once it has been approved, as an outline for conducting administrative or technical case reviews in the usual course of their work. This proposed standard is designed to address not only the examination procedures, but also the differences between types of processes, their reviews, their strengths and their limitations. (I also can’t help to think that voice-stress’ acceptance could have some problems with this standard.)

In keeping with the direction of this proposed standard, it was of interest that a member of this committee expressed that the general public will often encounter the procedures contained in this standard, when presented by lawyers and judges, when they are acting as jurors in both civil and criminal cases, or when as a client in personal legal proceedings that would include a forensic evidence report or forensic expert court testimony.

Reference

Overall Validity Of Comparison Question Tests

The validity of CQ polygraph tests has generated intense debate among scientists (Honts et al., 2005; Iacono and Lykken, 2005). Although the majority of psychophysiologists have expressed generally positive attitudes concerning the usefulness of polygraph tests for assessment of credibility (Amato and Honts, 1994; Gallup Organization, 1984), the American Psychological Association expressed serious concerns about their scientific basis and some of their specific applications (Raskin, 1986b, p. 73). A detailed examination of the scientific literature is necessary to provide answers to this complex empirical question.

This is an excerpt from Chapter 3 of the book Credibility Assessment: Scientific Research and Applications edited by Drs. David Raskin, Charles Honts, and John Kircher. It begins on page 79, and summarizes the research regarding the validity of the Probable-Lie Comparison (PLC) test. It is reprinted here with the kind permission of Elsevier Science and Technology Books. Interested readers can purchase the book by following this link: http://store.elsevier.com/product.jsp?isbn=9780123944337. Use the discount code CMM2514 at checkout to receive 25% off the list price.
There has been a great deal of research, development, and experience with various techniques that employ physiological measures for assessing credibility concerning specific acts, events, or knowledge (Honts et al., 2005). The first scientific laboratory study of the CQ technique was conducted at the University of Utah (Barland and Raskin, 1975a), although the technique had been in widespread use since it was introduced more than 65 years ago by Reid (1947).

The debate about the accuracy of CQTs for investigative and forensic purposes centers on two general sources of data from which the accuracy of such tests may be estimated. Data may be obtained either from laboratory simulations of criminal situations (mock-crime studies), or studies of actual cases that include testing of one or more suspects in a criminal investigation. Each type of study has advantages and disadvantages, and both types are needed to provide an overall picture of test accuracy.

Laboratory research has traditionally been an attractive alternative because the scientist can control the environment. Moreover, in credibility assessment studies, the scientist can know with certainty who is telling the truth and who is lying by randomly assigning subjects to conditions. Laboratory research on credibility assessment has typically made subjects deceivers by having them commit a mock crime (e.g., “steal” a watch from an office) and then instructing them to lie about it during a subsequent test. From a scientific viewpoint, random assignment to conditions is highly desirable because it controls for the influence of extraneous variables that might confound the results of the experiment (Shadish et al., 2002).

The most accepted type of laboratory study realistically simulates a crime in which some subjects commit an overt transaction, such as a theft (Kircher et al., 1988). While the guilty subjects enact a realistic crime, the innocent subjects are merely told about the nature of the crime and do not enact it. All subjects are motivated to produce a truthful outcome, usually by a cash bonus for passing the test. For example, one such study used prison inmates who were offered a bonus equal to one
month’s wages if they could produce a truthful outcome (Raskin and Hare, 1978).

The advantages of careful laboratory simulations include total control over the issues that are investigated and the types of tests that are used, consistency in test administration and interpretation, specification of the subject populations that are studied, control over the skill and training of the examiners, and absolute verification of the accuracy of test results. Carefully designed and conducted studies that closely approximate the methods and conditions characteristic of high-quality practice by polygraph professionals and that use subjects similar to the target population, such as convicted felons or a cross-section of the general community, provide the most generalizable results (Kircher et al., 1988).

Laboratory research in general, and credibility assessment in particular, can be criticized for a lack of realism. This lack of realism may limit the ability of the scientist to apply the results of the laboratory to real-world settings. However, a study reported by Anderson et al. (1999) examined a broad range of laboratory-based psychological research. They concluded (Anderson et al., 1999, p. 3): “Correspondence between lab- and field-based effect sizes of conceptually similar independent and dependent variables was considerable. In brief, the psychological laboratory has generally produced truths, rather than trivialities.” Our position with regard to the high-quality studies of the CQT is similar; we believe that those studies produce important information about the validity of such tests and not trivial information as some of the critics have claimed (e.g., Iacono and Lykken, 2005). When surveyed, the majority of psychophysicologists and psychology and law researchers agreed (Honts et al., 2002).

**Accuracy of the PLT in the Laboratory**

Honts (2004) reported that 11 high-quality published laboratory studies of the CQT indicate that the CQT is an accurate discriminator of truth-tellers and deceivers. Overall, the CQT correctly classified 90% of the subjects, and produced
approximately equal numbers of false-positive and false negative errors (for more detailed descriptions of laboratory studies, see Ad Hoc Committee on Polygraph Techniques, 2011; Raskin and Honts, 2002).

**Accuracy of the PLT in the Field**

The major disadvantage of laboratory simulations is the difficulty of completely simulating the real-life situation in which a person suspected of a crime is administered a polygraph test. To verify test accuracy under field conditions, it is necessary to use tests conducted on actual criminal suspects. However, field studies of criminal suspects have inherent problems. The major problem is obtaining verification of the suspect’s actual guilt or innocence status, which can be very difficult in real cases. The best method uses confessions to verify the guilt and innocence of the examinees. Law enforcement cases that involve polygraph tests produce rates of confessions in the range of 30-80% (Office of Technology Assessment, 1983), but it is not known how these cases compare to those that did not produce confessions.

It is important that field studies select cases according to scientifically acceptable sampling procedures, using only cases in which properly trained polygraph examiners employed standard field methods for conducting the tests and interpreting their outcomes. It is our position that useful field studies of the psychophysiological credibility assessment tests should have all of the following characteristics:

- Subjects should be sampled from the actual population of subjects in which the researcher is interested. If the researcher wants to make inferences about tests conducted on criminal suspects, then criminal suspects should be the subjects who are studied.

- Subjects should be sampled by some random process. Cases must be accepted into the study without reference to either the accuracy of the original outcome or to the quality of the physiological recordings.
• The resulting physiological data must be evaluated by persons trained and experienced in the field scoring techniques about which inferential statements are to be made. Independent evaluations by persons who have access to only the physiological data are useful for evaluating the information content of those data. However, the decisions rendered by the original examiners may provide a better estimate of the accuracy of polygraph techniques as they are actually employed in the field.

• The credibility of the subject must be determined by information that is independent of the specific test. Confessions substantiated by physical evidence presently are the best criteria available.

In 1983, the Office of Technology Assessment of the US Congress selected ten field studies that they felt had at least some degree of scientific merit. The overall accuracy of the polygraph decisions was 90.1% on criterion-guilty suspects and 80% on criterion-innocent suspects (Office of Technology Assessment, 1983). In spite of the inclusion of many studies with serious methodological problems, accuracy in field cases was higher than is claimed by some of the most vocal critics (Lykken, 1998).

A survey of the available field studies was performed by the Committee of Concerned Social Scientists (Honts and Peterson, 1997). They found four field studies that met the criteria for meaningful field studies of psychophysiological credibility assessment tests. Overall, the independent evaluations of the field studies produced results that are quite similar to the results of the high-quality laboratory studies. The average accuracy of field decisions for the CQT was 90.5%. However, in the field studies, nearly all of the errors made by the CQT were false-positive errors.

A recent field study by Ginton (2012) employed a novel approach that eliminated the need for external verification, i.e., confession or other evidence. He obtained 64 paired polygraph tests from the files of the Israel Police in which contradictory statements were provided by the two examinees in each pair. Independent analyses
of the background material indicated that only one individual could have told the truth on the relevant questions, but which of the pair was unknown. Since the proportion of pairs with the same test outcome is inversely related to the accuracy of the test, an algebraic solution determined that the accuracy of CQT decisions was 94% on guilty suspects and 84% correct on innocent suspects. These results reinforce the findings of 90% overall accuracy of the field studies cited above. Significantly, Ginton’s paradigm overcomes the objections of Iacono and Lykken (2005) and the National Research Council (2003) that the false-negative rate is underestimated and the confession criterion is not independent of the polygraph test result.

Although the high-quality field studies indicate a high accuracy rate for the CQT, these results were derived from independent evaluations of the physiological data. This is a desirable practice from a scientific viewpoint, because it eliminates possible contamination (e.g., knowledge of the case facts) and the overt behaviors of the subject during the examination that might have influenced the decisions of the original examiners. However, independent evaluators rarely testify in legal proceedings nor do they make decisions in most applied settings. It is usually the original examiner who makes the decision that affects how the investigation proceeds in an actual case and may provide court testimony. Thus, accuracy rates based on the decisions of independent evaluators may not be the figure of merit for legal proceedings and most applications. The Committee of Concerned Social Scientists summarized the data from the original examiners in the studies reported above and for two additional studies that are often cited by critics of the CQT (Raskin and Honts, 2002). The accuracy of the decisions made by the original examiners was 98% for innocent suspects and 97% for guilty suspects. These data suggest that the original examiners may be more accurate than the independent evaluators.

The National Research Council (2003) published an extensive review of polygraph testing. Their study was originally commissioned to assess the use of polygraphs in the context of government employment screening. Finding little research and useful data for such testing, the study committee changed its focus to an evaluation of the
uses of polygraphs in specific issue testing. Although they raised many criticisms of polygraph testing, they found that seven studies of specific-incident polygraph tests in criminal investigation produced a median accuracy of 0.89 (National Research Council, 2003, Appendix H, p. 352). They qualified this result based on their view that there was a lack of independence between the polygraph test results and the criteria for ground truth used in the studies. In spite of this caveat, their report concluded (National Research Council, 2003, p. 197):

The available evidence indicates that in the context of specific-incident investigations and with inexperienced examinees untrained in countermeasures, polygraph tests as currently used have value in distinguishing truthful from deceptive individuals. However, they are far from perfect in that context, and important unanswered questions remain about polygraph accuracy in other important contexts. No alternative techniques are available that perform better…

Following many concerns expressed by various experts about the methods and motives underlying the report by the National Research Council, the American Polygraph Association Ad Hoc Committee on Polygraph Techniques (2011) conducted a 4-year study of the scientific basis for polygraph techniques. They summarized results from 52 different experiments and surveys published in 37 different studies, including results from 289 scorers who provided a total of 12,665 scores for 2300 criterion deceptive examinations and 1983 criterion truthful exams. Fourteen different polygraph techniques were supported by multiple published studies that satisfied the qualitative and quantitative requirements for inclusion in the meta-analysis. The results for CQT specific-incident diagnostic techniques produced an average criterion accuracy of 92%.

**The Polygraph Compared with Other Diagnostic Techniques**

Crewson (2001) reported a meta-analysis that compared the accuracy and reliability of polygraph tests with standard tests commonly used for medical and psychological
diagnoses. Following a computer-based search of the scientific literature, he reviewed 1158 articles and abstracts, and found 145 to be useful, resulting in data on 198 studies. Agreement between evaluators was evaluated with the k statistic. For evaluators in the fields of polygraph, medicine, and psychology, the obtained k coefficients were 0.77, 0.56, and 0.79, respectively. For field diagnostic assessments, the sensitivity of polygraph, medical, and psychological assessments were 0.92, 0.83, and 0.72, respectively. Specificity of polygraph, medical, and psychological diagnostic tests were 0.83, 0.88, and 0.67, respectively. The overall accuracy for polygraph tests (0.88) was comparable to medical diagnoses (0.86) and higher than psychological diagnoses (0.70). These results demonstrate that polygraph evidence is at least as reliable as many other types of accepted expert testimony (e.g., medical, psychiatric, and psychological opinions).

The foregoing evidence demonstrates that the results of high-quality scientific research from the laboratory and the field converge on the conclusion that properly conducted CQTs discriminate between truth-tellers and deceivers with an accuracy of approximately 90%. Moreover, original examiners, who are most likely to offer testimony, may produce even higher accuracy. There may be a tendency for the CQT to produce more false-positive than false-negative errors, but this trend in the current literature is not particularly strong. If there is a tendency for the polygraph to produce more false-positive than false-negative outcomes, then triers of fact should weight negative outcomes (passed polygraphs) more heavily than positive outcomes (failed polygraphs). To reduce the risk of false-positive errors, Krapohl (2005) suggested an approach that adjusts the decision criteria for evidentiary purposes.

In response to critics of the polygraph, Honts and Schweinle (2009) studied the information gained with polygraph tests compared with credibility judgments made by professionals and laypersons in forensic and screening settings. In forensic settings, the polygraph provided substantial information gain across a large range of base rates of guilt for laboratory and field data. Even when 90% of the subjects were guilty, the polygraph results provided 27 times the information gain compared with the human judgments.
Introduction

In this Hopefully Helpful, author Walt Greene talks about one of our favorite subjects…Report Writing. Our reports need to be written for the consumer. If we conduct screening exams for an agency’s adjudicative division, then we write to that audience. If we are testing for a civil service commission, Sheriff, Chief of Police, etc., we write to them. By writing “to them,” we mean being mindful that the decision maker will be basing his or her decision, at least in part, on what we provide in the report. Sounds simple enough, yet we sometimes forget that omitting a relatively insignificant detail can greatly impact the decision made regarding the applicant. We also must remember that more and more exams are being reviewed by third parties. A
report’s inaccurate representation of what was said during our exams is rightly difficult to defend. These errors may also lead to damaged credibility.

Many reports that are poorly written and difficult to read contain some unique omissions or phrases. Fortunately, most are easily repaired with a little thought and effort. The following is a list of some common problems, along with some hints for solving them.

<table>
<thead>
<tr>
<th>Avoid</th>
<th>Replace With</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used marijuana less than 10 times.</td>
<td>Used marijuana between 5 and 10 times, or, used marijuana at least 5, but no more than 10 times.</td>
</tr>
<tr>
<td>Used marijuana prior to Jan 2003.</td>
<td>Used marijuana between Jan 2003 and Jan 2012, or, first used marijuana in Jan 2003, and last used it in Jan 2012.</td>
</tr>
<tr>
<td>Thefts totaled no more than $1000.</td>
<td>Thefts totaled between $800 and $1000, or, thefts totaled at least $800, but no more than $1000.</td>
</tr>
</tbody>
</table>

Reduce the length of reports and make them easier to read by omitting unnecessary verbiage. For example, there is no need to begin a paragraph of reportable information with the obvious, “Subject provided reportable information on the issue of adult criminal activity.” Instead, the paragraph should begin with the actual information: “Subject stated that in August 2012, he stole between $800 and $1000 in cash from...”

If reportable information seems to be complicated, sentences can be reconstructed using, in the following sequence, time, date, place, person, action. For example, at 1330 hours, 10 Jan 2014, on the 3d floor, 123 Main St., Anytown, USA, subject was administered a polygraph
examination.” All the unnecessary verbiage is automatically omitted, and the reader is immediately given all the relevant facts. Follow-up consists of further details of WHO, WHAT, WHERE, WHEN, WHY and HOW? Remember that the WHO, WHAT, WHERE, WHEN, WHY and HOW must sometimes be asked many times if we’re to obtain all the information we need for our reports.

Here are some examples of how important follow up questions can be:

Examiner: Where did you meet him?  
Subject: In California.  
Examiner: Where?  
Subject: Anaheim.

Examiner: When did you last use coke?  
Subject: Years ago.  
Examiner: When?  
Subject: 2011.  
Examiner: When?  
Subject: In the summer time.  
Examiner: When?  
Subject: I think in July.  
Examiner: When?  
Subject: It must have been July 4th, yes, I remember I was at a 4th of July party.  
Etc.

who . . .

what . . .

where . . .

when . . .

why ???
“Have you seen …?”

Tuvya T. Amsel

On October 4, 1992, El Al flight 1862, a Boeing 747 cargo plane, took off from JFK New York Airport to Ben Gurion Israel Airport with a four-hour, stop-over in Amsterdam Schipol Airport in Holland. At 06:27 pm, five minutes after takeoff from Schipol, while still climbing, the aircraft’s two fuse pins on engine number 3 (the inner engine of the right wing) failed and the engine dropped into a nearby lake. While falling down the engine hit its adjacent engine (no. 4) causing it to rip a 30 foot stretch in the wing on its way down as well. Immediately after losing the two starboard engines the pilots decided to return to Schipol Airport for an emergency landing. While maneuvering the damaged plane to land they crash landed and exploded into a nearby apartment building killing 39 people and 4 crew members, a disastrous tragedy.

Ten months later in August 1993, three Dutch researchers (Crombag, Wagenaar...
& Van Koppen\textsuperscript{i}) questioned 193 (96 females and 97 males holding a graduate and higher degree) subjects chosen from the students and university staff. The subjects were given a one-page questionnaire. It started with a reminder of the disastrous incident followed by a statement: “We want to test your memory for particular detail of this disaster. The test question is preceded by factual questions”: The first two factual questions were: gender and age followed by the “key” question: “Did you see the television film of the moment the plane hit the apartment building?” “Yes or No”. If the subject answered “Yes,” s/he should answer the next question: “After the plane hit the building, there was a fire. How long it take for the fire to start?” Optional answers were a. The fire broke out almost immediately b. It took a while, namely ___ seconds/___ minutes c. I don’t remember.

Out of the 193 subjects, 107 (55\%) confirmed that they had seen the TV film. Out of them 63 (59\%) reported that the fire broke out immediately, 24 (23\%) reported that the fire broke out a little later and 20 (18\%) could not remember. In a second study conducted by the same researchers 61 (66\%) out of 91 law student confirmed seeing the TV film.

Despite an average number of 60\% reporting they had seen the film, there was \textbf{no such film} of the plane crashing into the building!!! The researchers suggested that the cause of the wrong answer was how our memories are accumulated: most of the information that we are exposed to comes from an external source such as media, other people, etc. and not from personal experience. As long as the information is logical and it makes sense without being contradicted we accept it as a fact and it becomes a memory. So once the “fact” of the TV footage was implanted to the key question, it sounded logical especially in light of their personal memories of seeing other TV footage of the disaster. The researchers’ conclusion was that ambiguous questions generated the \textbf{crashing memory (“crashing memory paradigm”)}.  

As odd as these results seem, the phenomenon of false memory as demonstrated in this research was not a unique episode. The phenomenon was repeated in other research. In Ost et al. (2002) 45% of subjects reported that they had seen the non-existing TV footage of Prince Diana’s deadly car crash in August 31, 1997. Jelicic et al. (2006) found 63% (out of 83 subjects) stated that they had seen a non-existing TV footage of the Dutch politician Pim Fortuyn’s assassination by Volkert van der Graff, an environmental and animal-rights activist, in May 2002. Granhag et al. (2003) found in one of their studies that 55% of subjects (38% in the first study) reported seeing the non-existing TV footage of the Estonia ferry sinking which occurred on September 28, 1994, while the ferry was crossing the Baltic Sea en route from Talinn, Estonia, to Stockholm, Sweden, taking the life of 852 out of its 1049 passengers.

Smeets et al. (2006) examined the impact of question phrasing on the memory by asking 120 subjects if they had seen the non-existing TV footage of the Dutch politician Pim Fortuyn’s assassination. The subjects had been divided into four groups (“ambiguous,” “specific high suggestive,” “specific low suggestive” and “neutral”) of 30 subjects each. Each group was asked the question in a different way.

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• 63% of the “ambiguous” group that was asked, “Did you see the amateur film of the Fortuyn shooting?” remembered seeing the footage.

• 30% of the “specific high suggestive” group that was asked, “Did you see the amateur film of the moment Fortuyn was shot by Volkert van der Graff?” remembered seeing the footage.

• 30% of the “specific low suggestive” group that was asked, “Did you see an amateur film of the moment Fortuyn was shot by Volkert van der Graff?” remembered seeing the footage.

• 26% of the “neutral” group that was asked, “Do you remember whether there was a film of the moment Fortuyn was shot by Volkert van der Graff?” remembered seeing the footage.

All these studies were influenced by the Loftus & Palmervi pioneering research which examined the influence of a “leading question” on human memory. In their research, participants viewed a video footage of a crash between two cars. When asked “About how fast were the cars going when they smashed/collided/bumped/hit/contacted into each other?” the estimated speed was in accordance with the severity of the terminology; the stronger the word used, the faster the cars travelled (smashed 40.8 mph, collided 39.3 mph, bumped 38.1 mph, hit 34 mph and contacted 31.8 mph). Loftus and Palmer argued that the answer could be a result of memory distortion due to the verbal use as well as fulfilling the questioner expectations. Their conclusion was that: Past

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vii Schater D. The Seven Sins of Memory, Houghton House, NY, 2001
experience memory is not necessarily a reconstruction of the past but rather a misleading post-event that may cause memory distortions.

According to Daniel Schacter these cases are but just one sin of the human memory’s seven sins (memory failures) which are:

- **Transience** – A general deterioration or loss of memory that occurs over time.
- **Absent Mindedness** – Not paying enough attention to what we were doing and later having difficulties remembering.
- **Blocking** – While retrieving information another memory surfaces and blocks the first.
- **Misattribution** – Correct recollection of a certain information mixed with an unrelated different source of information.
- **Suggestibility** – Importing false information suggested by another into our memory.
- **Bias** – Ideas or beliefs that enter into and interpret our memory and by doing so distort it.
- **Persistence** – Memory distortion caused by unpleasant or traumatic feelings which accompanied the actual episode.

**Eyewitnesses**

Claims against eyewitness misidentification have been made since the beginning of the 20th century. As early as 1908 Hugo Munsterberg had questioned the reliability of eyewitnesses in his book *On the Witness Stand*. Later in 1935 Yale law professor Edwin Borchard studied 65 wrongful convictions and found that “… eyewitness misidentification was the leading cause of wrongful convictions.” More recently the Innocence Project stated that, “Eyewitness misidentification is the single greatest cause of wrongful convictions nationwide, playing a role in nearly 75% of convictions overturned through DNA testing.”

**Public service announcement**

This review was brought to your attention as a public service announcement in order to accent the importance of proper pre-test and test question phrasing as well as emphasizing the necessity of avoiding leading questions that could cause false polygraph results. False memory is a fact: Don’t be its initiator.

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vii www.innocenceproject.org/understand/Eyewitness-Misidentification.php
The major threat in polygraph testing today is countermeasures employed by examinees trying to defeat the test. Of the many various countermeasures (e.g. physical, mental, chemical, etc.) the most common are controlled breathing and subtle body movement. Instrument manufacturers have diligently developed movement sensors to advise the examiner that the examinee is possibly employing a physical countermeasure. During a recent Basic Forensic Psychophysiology Examiner training course conducted in the Republic of South Africa, the author observed some tracing correlation between the Seat Activity Sensor (SAS) tracing and the other chart tracing parameters.

Observations
The following physiological tracing parameters were noted to have specific correlations to tracings in the SAS during various body movements. My paper will identify changes in the activity sensor tracing when we have distortions (deliberate or undeliberate). The chart was run in South Africa as practice for students who attended the basic polygraph course class to show the reactions in each parameter. The instrument used was a Lafayette LX 4000. Before starting the test I reviewed with the examinee (student) what I was going to ask him and what he should do, for a total of 18 requests/questions.

(1) Movement - Upper part of body (from head to abdominal)
(2) Movement - Lower part of body (under abdominal to toes)
(3) Movement - Left hand (cardio cuff connected)
(4) Movement – Right hand (EDA connected)  (14) Inside noise
(5) Physical – Cough  (15) Outside noise
(6) Physical – Swallow  (16) Mental countermeasure – Counting from higher to lower
(7) Physical – Clear throat  (17) Mental countermeasure – Exciting
(8) Physical – Deep breath  (18) Bite tongue
(9) Physical – Sniff
(10) Physical – Laugh
(11) Physical – Sleep
(12) Physical – Move toes
(13) Physical – Sphincter

The duration of each question was 25 seconds. Figures 1 and 2 show the first five questions, about which I will explain my observations.

**Figure 1. First chart segment.**

![First chart segment](image_url)

Figure 1. This section shows Questions 1 and 2. You can observe the difference of reaction between Questions 1 and 2.

Question 1, where the examinee was asked to move the upper part of body. This was a smart movement, and not obvious. I will review it from bottom to top for each parameter;

- SAS: The tracing went up for three chart divisions and went down to hit baseline, dropping further before...
becoming straight and level with the baseline. The tracing went up due to a reduction in the subject’s pressure against the SAS when he used muscles of the upper body.

- **Cardio:** Sudden change exactly at the same time as the change recorded with the SAS, diastole did not go completely down, the tracing changed at the top, so there was an increase in blood pressure for three seconds. Both the SAS and cardio tracings returned to the norm pattern at the same time.
- **EDA:** No marked change.
- **Pneumo:** Affected. The reaction started 1.5 seconds before the SAS reaction, was suppressed, and the baseline arousal occurred after a few seconds. From the pneumo tracing you find a change of rate and amplitude of the breathing cycle, even though the movement was very minimal.

Question 2: Movement lower part of body, a smart move. We will review Question 2 from bottom to top:

- **SAS:** The tracing went down due to the use of muscles to move the lower part of the body, which press the SAS. After that it went up to recover and hit the baseline. The reaction lasted three seconds.
- **Cardio:** No marked change because the movement happened in the lower part of the body.
- **EDA:** No reaction.
- **Pneumo:** Both pneumos have a lower apnea starting before the SAS by one second. This indicates that, when the subject intended to make a deliberate movement, he held his breathing while using his muscles in lower part of body. He does the same in the upper pneumo, causing irregular cycles. The breathing cycles almost came back to regular cycles at the same time.

**Conclusion**

1- From the activity sensor we can know the type of distortion.
2- With more studies we can evaluate the reaction of the SAS.
3- Other parameters will help us to detect what kind of distortion took place when we match them with the activity sensor.
Figure 2 shows a chart segment that includes Questions 3, 4 and 5. You can observe the difference in reaction between Question 3 (Movement – left hand which was connected with the cuff) and Question 4 (Movement – right hand which was connected with EDA).

Question 3: Examinee was asked to move his left hand at Question 3. This was a smart movement, not obvious. We will next review the parameters from bottom to top.

- SAS: No marked change.
- Cardio: Sudden burst cycle in blood pressure tracing, happening just after the subject received the instruction to do it. The effect was minimal. Note: The examinee mentioned after the polygraph test that he slowly contracted his forearm muscle.
- EDA: No marked change.
- Pneumo: Affected. The reaction started at almost the same time as the anomalous cardio cycle, with a change in amplitude breathing cycle along with a baseline arousal of two cycles. This is because breathing influences cardio cycles. For normal subjects, the pulse rate can be 68 per min, and breathing cycles of 17 per minute. This example will remind us that any sudden change in cardio will make a change in the pneumo at the same time even if the change is small.

Q 4: The examinee was asked to move his right hand. This was also a smart
movement, and not obvious. The EDA sensors were connected to the right hand. We will next review the chart segment from bottom to top.

- S.A.S: No marked change in S.A.S tracing.
- Cardio: No marked change except a minor blood pressure increase. The tracing remained stable.
- EDA: Obvious change (plunging). This is strong evidence for a movement of the hand connected to the EDA sensors.
- Pneumo: No marked change, but we observe a change of amplitude in the breathing cycles, becoming bigger for one cycle at almost the same time as the rise in the cardio.

Q5: The subject was asked to cough, to do it smoothly. I will review it from the bottom to top for each parameter. Note: The cough distortion in Q5 started from the first second of the question. The pressing of key letter on the chart was mistake.

Description: Before starting, I would like to describe the cough sequence. First, to cough you need some air to achieve it. Then, before starting to cough you hold your breath for up to one second to prepare for a stronger exhalation. After you cough you hold your breath for less one second before to returning to normal breathing.

When we check the parameters from bottom to top, we find:

- SAS: The tracing moves up the same way we observed in Question 1 (movement of the upper body). The sensitivity was (0.02).
- Cardio: Affected. Blood pressure increased at the same time as did the SAS.
- EDA: Affected. Clear change. The tracing started to rise up almost with the cardio, but extend the reaction 10 second more before returning back to the baseline.
- Pneumo: Affected exactly at the presentation of Q5. Here is my cough description: After inhaling the subject prepares himself for the cough as he was instructed before the test. Then he holds his breath for almost one second, with a descending apnea, followed by the cough. Compared to other norm breathing it will be sharp with a faster exhalation. We see the sharp exhalation striking the baseline at almost 90 degrees. Note: The subject in this test was slim. We expect a heavier subject to show a greater difference between P1 and P2. The first stages of the breathing cycle may be the same as those of a slim subject, but there can be a difference during the cough portion, with the tracings moving in opposite directions.
Conclusion
We should observe every change in the tracings to avoid incorrect scoring. I believe the tracing is like a language. We can soon understand the letters of this language and how we can read it.

Figure 3. Third chart segment showing Question 6, a repeat of Question 6, and Question 7.

Figure 3 includes Question 6, repeat of 6, and Question 7. The purpose for repeating Question 6 was to see if there would be a response or reaction in the EDA.

Question 6 and 6-repeated. The subject was asked to swallow. He was asked to do it in as smooth and minimal way as possible.

Description: Swallows usually appear in the exhalation part of breathing cycle, as seen in Figure 3. The distortion may come at the top of exhalation or lower in exhalation.

The most important thing we observe about swallowing is when the breathing cycle is descending.

We will review each parameter in Question 6/6-repeated from bottom to top.

- SAS: In both no marked changes in SAS tracing.
- Cardio: Blood pressure increased at the same time as the distortion occurred.
- EDA: No marked changes, but we observe during the first presentation of Q6 a slight reaction but after the
distortion period. Because of this, I decided to repeat Q6 and this time found no reaction. We can say the EDA was not affected by the swallow.

- Pneumo: Both times Question 6 was presented we observed a one-cycle suppression and a change of amplitude. Both times it happened as the cycle was returning to baseline.

Question 7: The subject was asked to do clear his throat. This maneuver was not obvious.

Description: A throat clear normally occurs in the exhalation part of the breathing cycle.

We will next review each parameter from bottom to top.

- SAS: Slight change. The tracing went up, then down to hit the base line, dropping further before becoming level with the base line (as with Question 1).

- Cardio: Affected. Blood pressure increased at the same time as the clear throat distortion.

- EDA: Affected. I believe this was due to the movement of clearing the throat.

- Pneumo: Affected. The throat clearing shows as a sharp descent during the exhalation, going past baseline before returning to normal breathing after two cycles. Note: We observed that P2 (chest) was more affected than was P1 (abdomen). The reason the throat clearing affected one pneumo more than the other was that the air used to clear the throat seemed to come more from the thoracic area than the abdominal area.

Conclusions

1- The SAS is not affected by swallows, but is affected by coughs and throat clearing.

2- We can find the key for each pattern with more teamwork when we treat the patterns as a language.
In Figure 4, Question 8 was presented three times. The first time the examinee was asked to take one deep breath. On the second time he was asked to duplicate the breath at the same amplitude. The third time he was asked to take a deeper breath than the earlier two.

I will review the three deep breath questions together to compare and evaluate the questions from bottom to top for each parameter.

The first two questions have the same amplitude; both are deep breath distortions of the same pattern.
- SAS: Affected. The tracing went up one half of a chart division in exactly the same way for the first two presentations of Question 8. The tracing went up further during the third presentation, and then dropping below baseline. As mentioned before, the physical movement during the subject’s breathing affected the pressure of his body against the SAS. For the third presentation of Question 8, with a deeper breath, the SAS went up one chart division, dropped below baseline, and then returned to baseline.
- Cardio: No marked change at any of the three questions except a slight blood pressure increase.
- EDA: No marked change in the first
and second presentations of Question 8, but we observed a reaction the third time after the deeper breath. In evaluating the reaction, we suspect it was due to the profound deep breath which caused a body movement which, in turn, led to the EDA reaction.

- Pneumo: We observed a clear change in one breathing cycle in each of the three questions, but we also observed that the baseline remained quite stable.

Conclusions

1- Deep breathing affects the SAS even when there are slight changes.

2- Very important: We observed no marked change in the cardio tracing with deep breathing. This guides us to and important point: So long as the examinee does not control or hold his breath, systole and diastole will remain stable. We may observe a slight change when the tracing is especially stable.

3- EDA: No marked change except when the examinee takes an exceptionally deep breath. We interpret this to indicate the EDA may be more affected by body movement than the breathing itself.

4- We observed one cycle of deep breathing but the other cycles remained stable and there was no baseline arousal. This guides us to a useful point. As long as the examinee doesn’t intend to try countermeasures, there may be an occasional deep breath, but the remaining cycles will display a stable baseline pattern. We recommend using a question pacing that captures at least four or more breathing cycles for the purpose of evaluating the baseline. As illustrated in the present case, when the SAS is evaluated in conjunction with the pneumograph baseline it can help determine the presence of countermeasures. When the examinee is attempting countermeasures, the deep breath will often have a pneumograph baseline arousal with it, and the top of the breathing cycle will be more rounded.
Figure 5 shows Question 9, where the examinee was asked to sniff. I will review each parameter from bottom to top.

Description: A sniff usually occurs with a faster inhalation, taking less than one second. When the examinee sniffs weakly, the examiner may not hear the sniff sound and won’t know about it. The examiner can easily detect the sniff from the screen while the test running, especially since all sniffs show the same pattern on the chart.

- SAS:  Sensitivity was 0.02. There was a slight change. The tracing went up a quarter of a chart division during the sniff.
- Cardio: No marked change but the tracing was slightly unstable, which corresponded with the breathing cycles.
- EDA: No marked change. There was an electrodermal response caused by the sniff a few seconds after the sniff took place.
- Pneumo: The sniff was associated with a bigger breathing cycle. Just before the big cycle was one suppressed cycle. Following the bigger cycle the tracing dropped below baseline before gradually rising to and over baseline again. There was no stable baseline afterward, but there was a baseline arousal with a different breathing amplitude.

Conclusions
1- SAS was slightly affected.
2- No marked change in EDA due to the sniff.
3- No marked change in the cardiograph, but it was slightly unstable due to unstable breathing.
4- The pneumo was affected. There was a rapid inhalation followed by an exhalation that dropped below baseline. The sniff was also followed by unstable breathing.
5- Consider that the sniff caused the strong reaction in the pneumograph. It is very important to determine whether the reaction was deliberate, especially if it took place after the comparison question.

Figure 6 showing Question 10.

Figure 6 shows Question 10 repeated twice. The examinee was asked to laugh at the first 10, and to laugh harder at the second 10. I will review each parameter for both questions from bottom to top.

- SAS: The sensitivity was set at 0.05. At the first 10 there was no marked change in the SAS tracing, but in the second 10, with the louder laugh, the SAS was affected. The tracing went up and then down to hit baseline, dropping below before becoming level with the baseline again.
- Cardio: No marked change at the first 10, but in the second 10 the louder laugh produced a slight change in the cardio tracing during the laugh.
- EDA: No direct effect on EDA
- Pneumo: Affected. During the
first laugh the breathing amplitude became smaller with faster cycles. For the second laugh there was one upper cycle suppression. This was followed by a sharp drop due to an exhalation, and then finally returning to a regular baseline.

**Conclusion**
- The pneumo is the only parameter that will show the laugh, as mentioned before. There was no indication in the EDA, but good evidence in the cardio. The SAS was affected by the louder laugh.

**Figure 7 showing Questions 11, 12 and 13.**

Figure 7 represents the tracings for Question 11 (sleeping), 12 (move toes) and 13 (tighten sphincter). I will evaluate each maneuver separately.

Question 11 is where the examinee was asked to try to sleep. We understand that this is very hard to do, and may not be possible for the examinee. When the examinee tried to sleep we find a low level apnea for three seconds in pneumo. I do not believe I can make an accurate evaluation in this question.

Question 12 is where the examinee was asked to move his toes. I will review each parameter in Question 12 from bottom to top.

- SAS: No marked change, but an
insignificantly slight change.  
- Cardio: No marked change.  
- EDA: No marked change.  
- Pneumo: We observed that while the examinee moved his toes, three breathing cycle became smaller. I believe this is due to the subject concentrating on moving his toes. This was a smart movement, and not obvious.

During Question 13 the examinee was asked to tighten his sphincter muscles. This was a smart move, and not obvious. I will review each parameter in Question 13 from bottom to top.

- SAS: The sensitivity was set at 0.05. The tracing was affected. There was a sudden sharp rise for three chart divisions, then a drop past baseline before returning back to baseline.
- Cardio: No marked change, only a slight change in the tracing.
- EDA: No marked change.
- Pneumo: We observed that P1 (abdominal) was affected more than P2 (chest), and that P1 showed one bigger breathing cycle during the sphincter tightening. Both the SAS and P1 reacted at the same time as the sphincter maneuver.

**Figure 8 showing Questions 14, 15 and the initial potion of 16.**
Figure 8 includes Question 14 (inside noise), Question 15 (outside noise), and Question 16, which will be taken up later.

Note: The inside and outside noises were unexpected: The examinee didn’t know the noise would happen, and therefore the tracing distortion is not deliberate. We will evaluate the inside and outside noises separately, and then make a comparison between them.

Question 14: The examinee heard the noise inside the room (knocking on the desk) taking place two seconds before I pressed the key to mark the beginning of the Question.

- SAS: Sensitivity (0.05). No marked change.
- Cardio: We observed an obvious blood pressure increase which continued nine seconds, after which the tracing returned back to straight and stable baseline.
- EDA: An EDA reaction started one second after the cardiograph reaction and remained for 14 seconds.
- Pneumo: The amplitude of four breathing cycles became smaller, but I have no further evaluation of these cycles. This calls for more research.

Question 15: The examinee heard a noise nine seconds after the question marking. The noise was a loud shout outside room.

- SAS: No marked change.
- Cardio: Blood pressure increased when the outside noise occurred.
- EDA: Affected two seconds after the outside noise occurred and continued almost 11 seconds before tracing became straight and level with the baseline.
- Pneumo: We observed an increase in amplitude accompanied by a descending baseline. Note: I do not have an explanation why the inside noise elicited smaller breathing cycles while the outside noise made bigger breathing cycles.
Question 16 (mental counting) and Question 17 (thinking about something that excites him). Note: I believe both of the tracing segments are deliberate distortions. Mental countermeasures should be considered deliberate distortions.

For Question 16 the examinee counted backwards from 100 by 5s. I will review each parameter from bottom to top.

- SAS: No marked change.
- Cardio: Blood pressure increased for almost six seconds and returned back to a straight stable tracing.
- EDA: No marked change.
- Pneumo: Affected. There were unstable breathing cycles, reduced amplitude, and an obvious dramatic change.

Question 17: The examinee was asked to think about an event which happened or excited him and was still clear in his memory. I will review each parameter from bottom to top.

- SAS: No marked change.
- Cardio: There was an increase in blood pressure for five seconds.
- EDA: Unstable tracing, but I suspect it was carryover from the earlier question.
- Pneumo: A drop of the exhalation below baseline. P2 (chest) appeared to be more affected than P1 (abdomen).
Question 18: The examinee was asked to bite his tongue twice, once for each time Q18 was presented. The first time the examinee bit his tongue after inhalation, and the second time he bit his tongue after exhalation. I will review each parameter in both questions from bottom to top.

- SAS: No marked change
- Cardio: Change in tracing after the tongue biting for both questions.
- EDA: No marked change.
- Pneumo: Affected when the examinee bit his tongue. The amplitude of that breathing cycle became smaller, and there was an unstable baseline.

Final Remarks
1- The parameter most affected is the pneumograph.
2- The tongue bite is a serious countermeasure, and not easy to detect. As mentioned earlier, whether it takes place after inhalation or between breaths it will be clearer with additional research.
3- It is my hope the APA will initiate more research and workshops to address the threat of the tongue bite.
4- This recent research was conducted in South Africa, but previously I found similar results in five tests conducted in the USA, United Arab Emirates, Oman, and a second test in South Africa.
Differential Salience

by

Michael Lynch

Winning Arguments

*Inconclusive (INC) Opinion* – An opinion by a polygraph examiner that the physiological data are not constant, specific and significant or the data is contaminated and therefore no opinion can be reached as to whether or not the examinee believes his or her answers to the relevant questions.

Examiner: “The test results are inconclusive.”
Lawyer: “What do you mean the test is inconclusive? My client paid you for a result and we get an ‘inconclusive’ opinion. We want our money back! I will never use your services again!”
Examiner: “I am not responsible for an inconclusive result. Your client was using countermeasures during the test.”

*Countermeasure* – Any action or actions taken by an examinee to influence the opinion of a polygraph examiner by movements, medication or cognitive processes.

About the author: Michael Lynch is a Primary Instructor with Marston Polygraph Academy. He can be reached at mlynch@lawyerspolygraph.com. The opinions and comments expressed in this article do not necessarily reflect those of Marston Polygraph Academy or the American Polygraph Association.
Lawyer: “Prove it. Prove my client was using countermeasures or give us our money back.”
Examinee: “Yeah, prove it; I did not do nothing wrong. I want my money back.”
Examiner: “You did so, you moved your legs when I asked a question. I am not giving your money back; so sue me.”
Lawyer: “OK, see you in court.”

(The next hour will be dedicated to an argument over whether or not the examinee was using countermeasures; an argument neither side can prove nor win - but always fun to listen to.)

Examiner: “The test results are inconclusive.”
Lawyer: “What do you mean the test is inconclusive? My client paid you for a result and we get an ‘inconclusive’ opinion. We want our money back! I will never use your services again!”
Examiner: “Based upon validated test data analysis, no opinion can be expressed due to artifacts of unknown origins. No other opinion can be substantiated.”
Lawyer: “What are artifacts? What studies will support your opinion?

Lawyer: “Later . . .”

(End of argument, end of discussion.)

Moral of the story: Countermeasures cannot be proven; they can only observed as artifacts. We should not report inconclusive results caused by countermeasures.

No Opinion (NO) – An opinion by a polygraph examiner that the physiological data are not sufficiently constant, specific or significant or the data are contaminated and therefore no opinion can be expressed as to whether or not the examinee believes or does not believe his or her answers to the relevant questions.

Examiner: “The test results are no opinion.”
Lawyer: “What do you mean the test is no opinion? My client paid you for a result and what we get is ‘no opinion.’ We want our money back! I will never use your services again!”
Examiner: “There is insufficient test data upon which to form a valid and reliable opinion.”
Lawyer: “What studies will support your opinion?
Lawyer: “Later . . .”

(End of argument, end of discussion.)
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