# Commentary

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# Major Points

- Some question whether accuracy of lie detection techniques (or other evidence) is the touchstone of admission/exclusion
- We need to wonder about
  - What does determine admissibility
  - Whether the courts would (or should) admit lie detection evidence even if its accuracy bordered on perfect

| | | False Pos | False Neg |
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| Polygraph | | | |
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| | | False Pos | False Neg |
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| Polygraph - CQT | | | |
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| Polygraph - GKT | | | |
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| | | False Pos | False Neg |
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| Polygraph - CQT | Lab | | |
| | Field | | |
| Polygraph - GKT | Lab | | |
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# NAS recently summarized:

“specific incident polygraph tests can discriminate lying from truth-telling at rates well above chance, though well below perfection.”

| | | False Pos | False Neg |
|---|---|---|---|
| Polygraph - CQT | Lab | 12% | 9% |
| | Field | | |
| Polygraph - GKT | Lab | | |
| | Field | | |
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| | | False Pos | False Neg |
|---|---|---|---|
| Polygraph - CQT | Lab | 12% | 9% |
| | Field | 2 | 25 |
| Polygraph - GKT | Lab | | |
| | Field | | |
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| | | False Pos | False Neg |
|---|---|---|---|
| Polygraph - CQT | Lab | 12% | 9% |
| | Field | 2 | 25 |
| Polygraph - GKT | Lab | 14 | 1 |
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| | | False Pos | False Neg |
|---|---|---|---|
| Polygraph - CQT | Lab | 12% | 9% |
| | Field | 2 | 25 |
| Polygraph - GKT | Lab | 14 | 1 |
| | Field | 53 | 2 |
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| Polygraph - CQT | Lab | 12% | 9% |
| | Field | 2 | 25 |
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| | Field | 53 | 2 |
| Bitemarks | | | |
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| Polygraph - CQT | Lab | 12% | 9% |
| | Field | 2 | 25 |
| Polygraph - GKT | Lab | 14 | 1 |
| | Field | 53 | 2 |
| Bitemarks | | 64 | 22 |
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| | Field | 53 | 2 |
| Bitemarks | | 64 | 22 |
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| Fingerprints | | | |
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# Itiel Dror et al.

| 5 yrs earlier | Now |
|---|---|
| Positive Ident | ? |
| Positive Ident | ? |
| Positive Ident | ? |
| Positive Ident | ? |
| Positive Ident | ? |

# Itiel Dror et al.

| 5 yrs earlier | Now |
|---|---|
| Positive Ident | Not a Match |
| Positive Ident | ? |
| Positive Ident | ? |
| Positive Ident | ? |
| Positive Ident | ? |

# Itiel Dror et al.

| 5 yrs earlier | Now |
|---|---|
| Positive Ident | Not a Match |
| Positive Ident | Not a Match |
| Positive Ident | ? |
| Positive Ident | ? |
| Positive Ident | ? |

# Itiel Dror et al.

| 5 yrs earlier | Now |
|---|---|
| Positive Ident | Not a Match |
| Positive Ident | Not a Match |
| Positive Ident | Not a Match |
| Positive Ident | ? |
| Positive Ident | ? |

# Itiel Dror et al.

| 5 yrs earlier | Now |
|---|---|
| Positive Ident | Not a Match |
| Positive Ident | Not a Match |
| Positive Ident | Not a Match |
| Positive Ident | Undecided |
| Positive Ident | ? |

# Itiel Dror et al.

| 5 yrs earlier | Now |
|---|---|
| Positive Ident | Not a Match |
| Positive Ident | Not a Match |
| Positive Ident | Not a Match |
| Positive Ident | Undecided |
| Positive Ident | Positive Ident |

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| Fire Science | | | |
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# Asserted Indicators of Arson

- Wide V's versus narrow V's
- Spalling of concrete
- Crazing of window glass
- Char blisters
- Speed of fire's spread
- Window sooting/staining
- Color of smoke and flame

# Arson Review Committee

*A Peer Review Panel Commissioned by the Innocence Project*


*Douglas J. Carpenter, P.E.*
*Combustion Science & Engineering, Inc.*
*8940 Old Annapolis Rd. Ste L*
*Columbia, MD 21045*
www.cseffra.com

*Daniel L. Churchward*
*Kodiak Fire & Safety*
*6409 Constitution Dr.*
*Ft Wayne, IN 46804*
www.kodiakconsulting.com

*John J. Lentini, Chairman*
*Applied Technical Services*
*1199 Atlanta Industrial Dr.*
*Marietta, GA 30066*
www.atslab.com

*Michael A. McKenzie, Esq.*
*Cozen O'Connor*
*SunTrust Tower, Ste 2200*
*303 Peachtree St. NE*
*Atlanta, GA 30308*
www.cozen.com

*David M. Smith*
*Associated Fire Consultants*
*4257 West Ina Rd Suite 101*
*Tucson, AZ 85741*
www.azcofire.com


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# *Report on the Peer Review of the Expert Testimony in the Cases of*

## *State of Texas v. Cameron Todd Willingham*

## *and*

## *State of Texas v. Ernest Ray Willis*

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| Fire Science | Many false indicators of arson | | |
| Voiceprints | Once admitted, now defunct | | |
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**Scientific Voice Identification Cases:**
**Holdings, Legal Tests, and Citations to NAS Report**

| Jurisdiction | Court | Case | Cite | Date | Legal Test | Held | NAS Report |
|---|---|---|---|---|---|---|---|
| Military | APP | Wright | 17 CMA 183 | 1967 | Reliability | IN | |
| CA | APP | King | 72 Cal.Rptr. 478 | 1968 | Frye-broad | OUT | |
| NJ | TR | Cary | 239 A.2d 680 | 1970 | Frye-broad | OUT | |
| MN | SC | Trimble | 192 N.W.2d 432 | 1971 | none | IN | |
| FL | APP | Worley | 263 So.2d 613 | 1972 | Reliability | IN | |
| FL | APP | Alea | 265 So.2d 96 | 1972 | none + [Reliability] | IN | |
| CA | APP | Hodo | 106 Cal.Rptr. 547 | 1973 | Frye-narrow | IN | |
| US-DC Cir. | APP | Addison | 498 F.2d 741 | 1974 | Frye-broad | OUT | |
| CA | APP | Law | 114 Cal.Rptr. 708 | 1974 | Frye-broad | OUT | |
| US-EDPA | TR | Sample | 378 F.Supp. 44 | 1974 | McC | IN | |
| MA | SC | Lykus | 327 N.E.2d 671 | 1975 | Frye-narrow | IN | |
| US-4th Cir. | APP | Baller | 519 F.2d 463 | 1975 | McC | IN | |
| US-6th Cir. | APP | Franks | 511 F.2d 25 | 1975 | McC + Reliability | IN | |
| US-6th Cir. | APP | Jenkins | 525 F.2d 819 | 1975 | McC + [Reliability] | IN | |
| OH | APP | Olderman | 44 OhioApp.2d 130 | 1975 | Reliability | IN | |
| CA | SC | Kelly | 130 Cal.Rptr. 144 | 1976 | Frye-broad | OUT | |
| US-DC Cir. | APP | McDaniel | 538 F.2d 408 | 1976 | Frye-broad | OUT | |
| NY | TR | Rogers | 385 N.Y.S.2d 228 | 1976 | McC + Rel + [Frye] | IN | |
| PA | SC | Topa | 369 A.2d 1277 | 1977 | Frye-broad | OUT | |
| MI | SC | Tobey | 257 N.W.2d 537 | 1977 | Frye-broad | OUT | |
| US-SDNY | TR | Williams | 443 F.Supp. 269 | 1977 | Reliab + [Frye-broad] | IN | |
| MD | SC | Reed | 391 A.2d 364 | 1978 | Frye-broad | OUT | |
| US-2nd Cir. | APP | Williams | 583 F.2d 1194 | 1978 | McC | IN | |
| NJ | TR | D'Arc | 385 A.2d 278 | 1978 | Reliab or Frye-broad | OUT | |
| DC | APP | Brown | 384 A.2d 647 | 1978 | [Reliability + Frye] | neither | |
| NY | TR | Collins | 405 N.Y.S.2d 365 | 1978 | Reliab + Frye-broad | OUT | |
| ME | SC | Williams | 388 A.2d 500 | 1978 | Reliability-Relevancy | IN | |
| NY | TR | Bein | 453 N.Y.S.2d 343 | 1982 | Reliab + Frye-narrow | IN | no |
| IN | SC | Cornett | 450 N.E.2d 498 | 1983 | Frye-broad | OUT | no |
| OH | SC | Williams | 446 N.E.2d 444 | 1983 | Reliability | IN | no |
| AZ | SC | Gortarez | 686 P.2d 1224 | 1984 | Frye-broad | OUT | yes |
| RI | SC | Wheeler | 496 A.2d 1382 | 1985 | McC | IN | no |
| LA | APP | Free | 493 So.2d 781 | 1986 | Relevancy balance | OUT | slightly |
| NJ | SC | Windmere | 522 A.2d 405 | 1987 | Frye-broad | OUT | no |
| CO | SC | Drake | 748 P.2d 1237 | 1988 | Frye-broad | OUT | no |
| US-7th Cir. | APP | Smith | 869 F.2d 348 | 1989 | Reliability + [Frye] | IN | slightly |
| US-DHI | TR | Maivia | 728 F.Supp. 1471 | 1990 | Reliab + Frye-narrow | IN | slightly |
| US-6th Cir. | APP | Leon | 966 F.2d 1455 (Table) | 1992 | McC | IN | no |

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# What Matters Besides Accuracy? Some Possibilities

- Civil v. Criminal
- Prosecution v. Defense
- Anglo-American v. Civil Law traditions
  - Credibility assessment belongs to factfinder
- A “feeling” about a technology
- Relation to invasion of a person’s “personality”

# What if it were highly accurate? Systemic impact on trial process

- Confuse veracity with accuracy
- Should all witnesses be compelled to be tested?
  - except criminal defendants
  - but if they don't waive their right to refuse?
- No compulsory testing
  - may opposing counsel comment on refusal?
  - does refusal –> inference of lying?
- Rescind or retain the rule against accrediting one's own witness?
  - if retain then only failed tests are brought to jury's attention
- Who pays for all of this testing?