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Effective Defense Polygraphs

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The polygraph examination can be an extremely effective defense tool. From persuading a client with unrealistic ideas about his prospects at trial to carrying the defense burden on a sentencing issue or corroborating a defendant's testimony,[1] the polygraph should almost always be considered. Widely used and trusted by prosecutors, law enforcement, and intelligence agency officials, this versatile test also can greatly benefit the defense practitioner — if used correctly.

This article provides some practice tips using recent federal cases in which defense polygraphs helped save defendants from prison and millions of dollars in criminal forfeiture, along with successful and unsuccessful efforts to use test results at trial.[2] There are lessons in each; the cases demonstrate the importance of using a highly credible examiner, carefully crafting test questions, and consulting with a highly qualified scientist for any evidentiary hearing. While admitting polygraph results in sentencing or other proceedings with relaxed evidentiary rules should ordinarily not be too difficult, making a sufficient showing under *Daubert*[3] to use the test at trial is a much greater challenge. Along the way, the article provides proven arguments, research, and methods for presentation at any evidentiary hearing.

Polygraph Evidence Is Expert Opinion Testimony

The polygraph is not actually a "lie detector." The modern version measures "involuntary and uncontrollable physiological responses by the autonomic nervous system" caused by "[a]ny conscious effort at deception by a rational individual."[4] The polygraph instrument records changes in blood pressure, pulse, respiration, and perspiration (galvanic skin response), and other physical movements of a subject.[5] Introduction of polygraph evidence requires tendering an expert witness who will give an opinion on a subject's veracity during a test.[6] There are obvious advantages to using a highly credible examiner, preferably someone on whom the government has previously relied.

Admissibility Varies

Since *Daubert* replaced the *Frye*[7] standard in 1993, polygraphs have been admissible at the judge's discretion[8] in most federal courts, except in the Fourth Circuit, where a *per se* ban holds,[9] and in military courts where they are barred by regulation.[10] New Mexico routinely allows polygraphs;[11] admissibility in two states, Alaska and South Carolina, is similar to most federal courts.[12] The majority of states and the District of Columbia[13] bar polygraph evidence entirely either by statute or common law;[14] a minority allows polygraph evidence if both parties stipulate to its use.[15]

Broad discretion is uniformly given to judges where polygraphs are admissible, making a victory in the trial court even more important than it already is for other evidence. Judges have often found grounds under either FRE Rules 702 and/or 403 to exclude the

evidence.[16] In *United States v. Piccinonna*, a 1989 *en banc* decision in the Eleventh Circuit overturning a blanket ban on polygraphs, the court made clear that "[t]he trial judge has wide discretion in [deciding to admit polygraphs] and rulings on admissibility will not be reversed unless a clear abuse of discretion is shown."[17] True to its word, the court has not found an abuse of discretion in the exclusion of polygraph evidence since 1989.[18]

Sentencings

Defense polygraphs can make a real difference at sentencing. There, judges have the widest possible discretion to consider virtually "any information (including hearsay), regardless of its admissibility at trial," provided it bears "sufficient indicia of reliability."[19] Fed. R. Evid. 1101(d)(3) exempts sentencings from the rules of evidence, and a federal statute (18 U.S.C. § 3661) gives courts explicit, broad authority: "No limitation shall be placed on the information concerning the background, character, and conduct of a person convicted of an offense which a court of the United States may receive and consider for the purpose of imposing an appropriate sentence."

Three Key Points

In any proceeding and jurisdiction, the proponent of polygraph evidence must ensure that the defense test is invulnerable to attack in three areas: (1) the examiner's qualifications; (2) the fair administration of the examination and test procedures, i.e., following scientifically validated polygraph protocols; and (3) the relevance of the test questions.[20] A few cases serve to illustrate:

Credibility of the Examiner

The testimony of a former FBI polygraph examiner kept Laura Leyva out of prison and saved her from $2.5 million dollars in criminal forfeiture.[21] In late 2014, James Orr, the former chief examiner for the Tampa FBI office (a special agent who had conducted 2,300 tests for the Bureau, the U.S. Attorney, and other federal agencies), examined Laura Leyva, a medical consultant trained as a physician, facing sentencing in January 2015 on Medicare fraud conspiracy charges. The indictment alleged that Leyva and others conspired to use her South Florida rehabilitation clinics to bill $2.5 million in fraudulent charges.[22]

The polygraph corroborated Leyva's consistent claim that she knew nothing of the fraudulent billing until after it had ended. Leyva's ownership of the clinics, other circumstantial evidence, and some pretrial government tactics promised to make her defense difficult at best.[23] Leyva's admission that she wrongfully destroyed some patient files after she became aware of the federal investigation made her defense at trial untenable.

The prosecution insisted that she accept responsibility for the large losses as part of any plea agreement — virtually ensuring 70-87 months in federal prison and $2.5 million in criminal forfeiture with restitution. Declining to sign a plea agreement, Leyva simply pled guilty to the indictment. During her plea colloquy, she carefully admitted only to the file-shredding long after the fraud was over, a criminal act the judge found sufficient to support her conspiracy plea. The prosecutor agreed that the defendant's overall offense conduct would be litigated during the presentence investigation — and ultimately decided by the sentencing judge.

Judge Charlene Honeywell noted the widespread use of polygraphs by the government and found both the defendant's and the examiner's testimony highly credible.[24] Judge Honeywell sustained the defense objection to the 18-level fraud/loss enhancement, finding that the defendant "did not learn of the fraud until after the actions had occurred," refusing to hold her accountable for any of the fraud losses.[25] This translated to eight months' home detention rather than 6-7 years in prison, and zero criminal forfeiture rather than the $2.5 million sought by the government — a debt that likely would have stuck with the defendant the rest of her life.[26]

Did the Defendant Obstruct Justice?

A defendant in a wire fraud case, although convicted by a jury, denied lying in her trial testimony; the polygrapher's credibility counted — a lot — and helped her avoid prison. One of the risks defendants take when they testify in a federal trial is that additional sentencing guidelines' offense levels are usually imposed if the jury convicts; i.e., if the jury believed the defendant, she would have been acquitted. Overcoming this "obstruction" enhancement is normally a heavy lift post-trial;[27] Kathryn Jasen's defense prevailed using the polygraph, and the test helped save her from federal prison.[28]

Ms. Jasen was tried with her husband, Glenn Jasen, by a federal jury in Tampa, Florida, in 2015, and both were convicted of wire fraud in connection with a real estate transaction. Ms. Jasen's trial testimony directly conflicted with a government witness on a key point, and the guilty verdict drew the expected recommendation for an enhancement that supported 24–30 months in prison.[29]

The judge gave considerable weight to the examiner's (Jim Orr) "years as a full-time polygraph examiner for the FBI, conduct[ing] more than 2,300 … examinations … always subject to critical review. … [The judge] thought the questions posed to Mrs. Jasen were unambiguous." While he could "easily justify 24 months imprisonment," instead the judge imposed 6 months of home confinement and probation. During the lengthy sentencing hearing, the judge relied on the polygraph to sustain a defense objection to the obstruction enhancement. Mr. Orr's "remarkable" credentials and the quality of his exam were important factors, something the judge contrasted with other polygraphs over the years with "ambiguous questioning and circumstances that undermine reliability."[30]

The Comparison Question Test

Most polygraphers use the comparison question test ("CQT"),[31] in which the examiner compares a subject's responses to "relevant questions" directly related to a crime with "comparison questions," designed to provoke a reaction but not directly related to the issue at hand, and neutral questions intended to evoke no response.[32] An example of a "comparison question" could be, "Have you ever lied to a friend?" A truthful examinee would be expected to have a stronger reaction to a question of that kind than to a relevant question, whereas the deceptive examinee would have a comparatively stronger physiological reaction to the relevant question.[33] This is the exam that the federal government uses, and the point is that tried and true is the rule here, for obvious reasons.[34] This will not stop opposing counsel from arguing that polygraphs are "junk science." However, examinations conducted by scientifically trained or former government examiners, using a standard CQT, help to take the wind out of the government's sails.

The 'Relevant Questions'

The "relevant questions" must be carefully constructed to ensure that a truthful answer unambiguously address-

es the intended point. David Kwong was charged with attempting to murder Catherine Palmer, a federal prosecutor, by sending her a booby-trapped briefcase.[35] Kwong passed a polygraph with what at first glance appear to be good questions and answers:

1. Did you conspire with anyone to send that package to Assistant United States Attorney Catherine Palmer? NO.

2. Were you the one who sent that package to Assistant United States Attorney Catherine Palmer? NO.

3. Do you know for sure who used a driver's license in the name of Wing Yeung Chan to buy the gun in question? NO.

The Second Circuit agreed with the district court's conclusion that "the questions posed to Kwong were inherently ambiguous no matter how they were answered." Kwong need not have conspired with anyone to have attempted murder; Kwong's guilt or innocence did not depend on whether he *personally* mailed the package; and qualifying the question about the driver's license with "for sure" rendered the answer "chimerical at best." Reaching no conclusion as to admissibility under Rule 702, the court held that Kwong's test was properly excluded under Rule 403.[36]

Using a Defense Polygraph at Trial

Admitting a defense polygraph at trial is a difficult challenge, but it *can* be done. At a *Daubert* hearing, the proponent is required to establish that the expert evidence is reliable, relevant, and not unduly misleading or prejudicial.[37] Many courts are predisposed to exclude polygraphs; but whatever the ultimate decision on admissibility, it is difficult to see the downside to letting the trial judge know that a defendant is most likely telling the truth.

The Cook on a Colombian Freighter with 1,500 Kilos of Cocaine

The cook on a large freighter repeatedly denied that he knew of the 1,500 kilos of cocaine found carefully hidden deep in the ship. At trial, the defense wanted to use the polygraph he passed.

One day in August 2014, after almost a month in dry-dock for repairs, the freighter *Hope II* was slipped back into the harbor in Cartagena, Colombia.[38] Just hours before, Jesus Angulo-Mosquera, a 53-year-old cook, returned by bus from home leave and boarded the ship, believing it was headed out for a brief test of the repairs. As soon as the ship proved seaworthy, however, the captain told the crew they were headed to Costa Rica to pick up a load of gravel.

Forty-eight hours later, the U.S. Coast Guard boarded the large cargo ship in international waters. After an intensive 17-hour search using sensitive ion scan equipment, officers found 1,500 kilograms of cocaine carefully concealed inside a false fuel tank. Angulo and the other seven crewmembers were brought to Tampa, Florida, for prosecution.

From his first interview by agents in September 2014 through trial in October 2015, Angulo told anyone who would listen that he was *not* part of this smuggling venture and did not know the drugs were on the ship. The government's circumstantial case was eventually bolstered by plea-bargained testimony from four of the eight crewmembers. While their combined testimony was a confusing bundle of contradictions and lies over two trials, the four defendants stuck together on the only point that mattered to the prosecution (and the jury): each claimed *the entire crew* was in on it.[39]

On November 6, 2014, Jim Orr conducted a polygraph exam at the jail, recording video, audio and all physiological responses.[40] Angulo easily showed no deception answering questions designed to test his knowledge of the cocaine smuggling venture — several versions of, "Before the Coast Guard searched the ship, did you know drugs were on board?" Orr's report and the recordings were immediately forwarded to the prosecutor, with a hope that the former Tampa FBI examiner's polygraph might persuade the government to drop the weak case against Angulo. The prosecutor, however, was unmoved.

Polygraph Evidence Is Admissible in the Eleventh Circuit

Research reveals that in the Eleventh Circuit, the trial judge has broad discretion to allow polygraph evidence to "corroborate testimony of a witness at trial."[41] Three conditions must be met: First, adequate notice must be provided to the government. Second, the prosecution must be given the opportunity to have its own expert administer a test on substantially the same issue(s).[42] Third, the evidence must be otherwise admissible under the Federal Rules of Evidence.[43]

The Proponent of Expert Testimony Has the Burden

The proponent has the burden at a Daubert hearing,[44] an uphill battle, meaning the defense needs a scientist as a primary witness. The next step for Jesus Angulo was a defense motion for an evidentiary hearing. With initially low expectations of success, it was difficult to see any downside to letting the trial judge know of the very favorable test results.

A highly qualified polygraph research scientist, Dr. David Raskin (Ph.D. in Psychology, UCLA)[45] was the sole defense witness at the December 23, 2014, *Daubert* hearing. Many examiners are well trained and have sufficient knowledge of the science behind the tests, but they ordinarily lack the scientific background and knowledge necessary — as well as the experience testifying — to withstand cross-examination by a well-informed prosecutor. The bottom line is the proponent of the expert polygraph evidence has the burden to establish its admissibility under FRE 702, meaning that it is reliable and relevant.[46] A scientist is crucial to that effort.

Dr. Raskin Filed a Declaration

Prior to the hearing, Dr. Raskin filed a detailed declaration that thoroughly addressed the five "Daubert factors"[47] and gave his evaluation of Mr. Orr's exam. Dr. Raskin proved an excellent *Daubert* witness, in part because of his encyclopedic knowledge of polygraphs, but also because of his experience testifying — examiners typically do not have nearly as much experience on the stand.[48] Filing a detailed declaration by Dr. Raskin in advance allowed for an abbreviated direct examination at the hearing, beginning with adoption of his declaration, followed by a short summary of his credentials and the *Daubert* factor evidence. The hearing quickly moved to cross-examination, re-direct, and argument.

The All-Important *Daubert* Hearing

Before concluding the story of Jesus Angulo, the cook on the ill-fated Hope II, however, it may be useful to review what may be anticipated in the all-important Daubert hearing. Those who have trod this path have done much excellent work. The arguments needed to prevail are available, and almost all of the prosecution's counterarguments have been heard before.

Daubert and the Polygraph

The science behind the modern polygraph and the CQT supports admissibility — not objectively a close question under *Daubert*.[49] With the passage of time since the High Court's landmark affirmation of FRE 702, more sensible courts focus on a bottom-line determination: Whether the proponent of expert evidence has marshaled a preponderance of empirical data and reasoning supporting the expert's proffered inference.[50] However, it may be useful — and some courts may require — for a defendant seeking to introduce polygraph evidence to use a *Daubert* checklist.

The *Daubert* Factors

Probably the most useful template for *Daubert* factor arguments is available in *Lee v. Martinez*.[51] In *Lee*, a unanimous Supreme Court of New Mexico, with 30 years' experience admitting polygraphs, affirmed a long-standing state polygraph rule of evidence (NMRA 11-707).[52] The court decided *Lee* in response to a challenge by criminal defendants to the routine demands of prosecutors for full *Daubert* proceedings proving the polygraph's general reliability again and again, notwithstanding the separate rule explicitly allowing polygraphs.[53]

The state's highest court decided that, if a trial court determined the examiner was qualified and the examination had been conducted according to NMRA 11-707,[54] the party seeking to admit polygraph results could not be required to independently establish reliability in a *Daubert* proceeding. Further, judges retained the authority to exclude polygraphs under NMRA 11-403 (the equivalent of FRE 403), but *not* "if the district court's reasons for excluding the evidence are grounded in a general disbelief in the reliability of polygraph results or a general hostility toward polygraph evidence."[55]

The New Mexico Court's *Daubert* Analysis

The court relied heavily on *The Polygraph and Lie Detection*, a 2003 report of the National Academy of Sciences ("NAS").[56] This evaluation ("NAS Report") was produced for the benefit of federal agencies and policymakers. *Lee*'s detailed analysis of the *Daubert* factors is a must-read for those preparing for an evidentiary hearing. Some highlights include:[57]

(1) Testability (the technique can be tested and opponents effectively concede the factor): "By claiming that a number of … studies establish that polygraph examinations do not work, the State has implicitly conceded that the hypothesis underlying [the CQT] can be tested."

(2) Peer review and publication: "a sizable number of polygraph studies have … appeared in good-quality, peer-reviewed journals. NAS Report at 108."

(3) Rate of error: "Polygraph results are far from conclusive; however, as the NAS Report concluded, numerous studies have shown polygraph tests can detect deception at rates well above chance. … [The] accuracy … is similar to many diagnostic techniques … including magnetic resonance imaging (MRI), CAT scanning, ultrasound and x-ray film." (The Court of Appeals of Alaska came to the same conclusion in 2015).[58]

(4) Maintenance of standards controlling the technique: "The American Polygraph Association (APA), the leading polygraph professional association, has developed protocol standards [similar to those in NMRA 11-707]." New Mexico (and other states) also license polygraphers.

(5) Acceptance by relevant scientific community: "[T]here is heated debate in the scientific community on the validity of [the CQT], leading the court to find that the technique has been neither "generally accepted" nor "uniformly rejected."[59]

In sum, the court found that polygraphs satisfy all the factors except the last, which, under the more liberal *Daubert* (and Federal Rules of Evidence) regime, was no longer determinative. (While the court was "cognizant of problems with polygraph results, such as the use of physical and mental countermeasures to 'beat the polygraph,' … any doubts about scientific admissibility of scientific evidence should be resolved in favor of admission.")[60] "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking *shaky but admissible* evidence. … These conventional devices, rather than wholesale exclusion … are the appropriate safeguards where the basis of scientific testimony meets the standard of Rule 702."[61]

"Often the same government officials who vigorously oppose the admission of exculpatory polygraphs of the accused find polygraph testing to be reliable enough to use in their own decision-making."[62]

Finally, the court, in part, reaffirmed Rule 11-707 "on principles of fairness," noting the widespread use of polygraphs by government officials who oppose use of the technique by criminal defendants.[63] Federal and state law enforcement officials rely on polygraphs even in jurisdictions where they are not admissible. Polygraphs are used to establish probable cause and make decisions on whether to prosecute or not, to make sentencing and prison disciplinary decisions, and are often required for probationers and others under supervision.[64]

Reliable When Used by the Government and 'Junk Science' in the Hands of the Defense?

To this list, the court could have added the use of polygraphs in admission to (and exit from) the federal Witness Security Program.[65] Justice Anthony Kennedy's concurrence in *United States v. Scheffer*[66] (doubting the wisdom of *per se* exclusion of polygraphs) noted "much inconsistency between the government's extensive use of polygraphs to make vital security determinations and [its arguments] stressing the inaccuracy of the tests." The federal government, including *every* U.S. law enforcement and intelligence agency, is the largest user of polygraphs in the world.[67] Prosecutors routinely include polygraph requirements in plea agreements and introduce the evidence in criminal proceedings.[68] That does not deter government counsel from using some form of "the polygraph is junk science" argument in opposing defense polygraphs.[69]

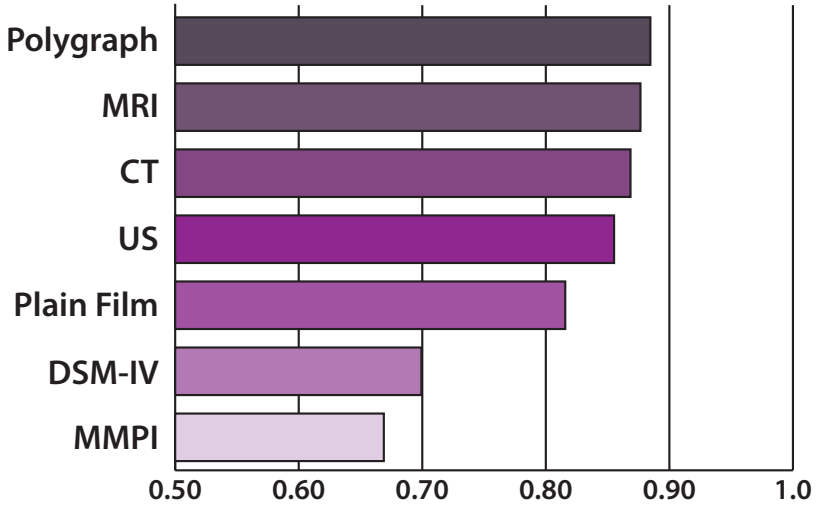
Polygraph Reliability Compared with Other Expert Evidence

The chart titled "Accuracy of Various Diagnostic Tools" is from a detailed 2001 study done for the Department of Defense. The study evaluated 198 published studies with the objective of comparing the accuracy of the polygraph with several common medical diagnostic tools.[70]

With an average accuracy of over 90 percent, the polygraph CQT compares very favorably with other "diagnostic" evidence commonly presented in court.[71] In fact, the reliability for a truthful CQT result for an innocent subject is even higher.[72] Polygraphs compare "favorably with such other scientific evidence such as x-ray films, electrocardiograms, fiber analysis, ballistics comparison tests, [and] blood

Accuracy of Various Diagnostic Tools

The average accuracy reported for 37 diagnostic polygraph studies (specific issue) was similar to MRI (17 studies), CT (19 studies), and ultrasound (38 studies). MMPI had the lowest reported accuracy (17 studies).



analysis."[73] It is "far more reliable than other forms of expert testimony, such as psychiatric and psychological opinions of sanity, diminished capacity, dangerousness, and many forms of post-traumatic stress/recovered memory syndromes,"[74] not to mention *eyewitness testimony*, which one respected and often-cited study has estimated to be 64 percent accurate.[75]

Daubert II Posed a Key Question

"*Daubert II elucidated the Supreme Court's opinion by stating that the most persuasive reason for concluding that an expert's testimony is derived from the scientific method is that 'the testimony … is based on legitimate research unrelated to the litigation.'*"[76] Also not mentioned in *Lee*, but nonetheless important, is a point made by a federal court admitting polygraph evidence under *Daubert* in *United States v. Crumby*.[77] The court, after an extensive hearing, wrote a detailed (and also useful) analysis of the *Daubert* factors, drawing on the Ninth Circuit's analysis on remand of *Daubert*, in a decision dubbed "*Daubert II*."[78] There, the court gave great weight to whether a party seeking to introduce scientific research was attempting to use expert evidence developed for particular litigation. The court in *Crumby* noted, "The modern science of polygraphy has been in existence for approximately 25 years [now more than 45 years]. … Polygraph evidence is used in a wide variety of circumstances including law enforcement, employment testing, etc."[79] The court thus weighed this in favor of admitting Mr. Crumby's polygraph.[80]

Use and Misuse of *Scheffer*

The government should be expected to rely heavily on minority dicta from United States v. Scheffer*: The proponent of polygraph evidence needs to know the case well.* During argument in *United States v. Angulo*, the government relied heavily on *United States v. Scheffer*.[81] This is a favorite of polygraph opponents and should be expected. It is fair to cite *Scheffer* for the phrase, "there is simply no consensus that polygraph evidence is reliable."[82] However, in *Angulo*, the government argued two points from *Scheffer* that were explicitly rejected by five members of the Court: (1) that polygraphs "usurp" the role of the jury as "lie detector," and (2) that juries can be distracted and confused by the collateral battle over polygraph evidence.

In fact, a majority of the *Scheffer* Court rejected these two arguments, stating that the claim of jury usurpation "demeans and mistakes the role and competence of jurors in deciding the factual question of guilt or innocence."[83] Peer-reviewed studies presented to the district court in *Angulo* show that juries, in fact, are not over-awed, distracted, or confused by polygraph evidence.[84] The same five justices in *Scheffer* explicitly refused to endorse language as to the burden of "collateral litigation."[85] However, while the government inaccurately cited *Scheffer* as authority for these critiques of polygraphs in *Angulo*, the prosecutor correctly observed that this dicta had found its way into "other cases throughout the country."[86]

The Scheffer *Court very simply held the military justice regulation banning polygraph evidence to be constitutional — not necessarily wise.* The *Scheffer* Court surveyed other lower courts, finding that the Fourth Circuit and many states had *per se* bans on polygraph evidence, while other federal circuits did not and the State of New Mexico routinely allowed it.[87] With that varying approach, the Court reached its fundamental holding. The Court could not "say, then, that … the president acted arbitrarily or disproportionately in promulgating a *per se* rule excluding all polygraph evidence."[88]

In dissent, Justice Stevens found *per se* exclusion of polygraphs unconstitutional and unwise,[89] and a majority agreed that it was neither good policy nor wise. Justice Kennedy, representing four justices, wrote that he "doubt[ed] though, that the rule of *per se* exclusion is wise, and [thought] some later case might present a more compelling case for introduction of the testimony than this one does."[90] His four-justice plurality was unwilling to join the dissent to invalidate the evidentiary rules of the Fourth Circuit and the majority of states, but took note of the "tension" between the *Scheffer* holding and "the considerable discretion given to the trial court in admitting or excluding scientific evidence" by the Court in *Daubert*.[91] "The upshot is that a five-justice majority appeared willing to entertain an accused's argument that a per se statutory or common law restriction on the admissibility of exculpatory expert testimony is unconstitutional as applied."[92] Thus, "*Scheffer* cannot be read as squarely holding that categorical limitations on defense expert testimony invariably pass constitutional muster."[93]

As Justice Stevens put it, "even highly dubious eyewitness testimony is, and should be, admitted and tested in the crucible of cross-examination."[94] Further, "[e]xpert testimony about a defendant's 'future dangerousness' to determine his eligibility for the death penalty, even if wrong 'most of the time,' is routinely admitted."[95] "Just as flight or other evidence of 'consciousness of guilt' may sometimes be relevant, on some occasions evidence of 'consciousness of innocence' may also be relevant to the central issue at trial."[96]

Other *Shaky* but *Admissible* Evidence Is Routinely Presented

Justice Stevens might well have included forensic brain-scan evidence, routinely admitted in often wholly circumstantial Shaken Baby Syndrome cases.[97] In the face of often tearful denials by nannies and other childcare workers, attorneys frequently confront this evidence in a battle of experts. The science in these cases is open to serious question, yet it is almost always admitted and it often results in convictions drawing lengthy prison terms in circumstantial prosecution cases.[98] Similarly, those accused of child sex crimes often face suggestively coached alleged victims and expert testimony on "grooming" (of the victim).[99] The eyewitness testimony referred to by Justice Stevens, though not expert testimony, is both commonly relied upon by juries and notoriously *un*reliable.[100]

Rule 403 and Polygraphs

Courts inclined to exclude defense polygraphs may rely on Rule 403, deeming the evidence excessively confusing or prejudicial. Courts skeptical of defense polygraphs often use Rule 403 to exclude the evidence.[101] In a typical example (*Kwong*), the Second Circuit affirmed a district court's exclusion of a defense polygraph because the test questions were "inherently ambiguous." The court held that while the defendant's polygraph was arguably admissible under Fed. R. Evid. 702, it would "mislead and confuse the jury" and was thus excludable under Rule 403.[102]

In comparison with polygraphs, any attorney who has tried cases to juries can recall relatively more confusing and even prejudicial expert testimony presented. Prosecutors routinely offer hair and carpet fibers recovered from defendants and purportedly "consistent with" evidence found at crime scenes; juries are expected to distinguish that "consistent with" standard from "identical to" during deliberations. Moreover, the Rule 403 analysis begins with a strong presumption in *favor* of admissibility (relevance is conceded), *minimizing* estimates of prejudicial impact, and appellate review almost always gives the prosecution the right to its chosen proof.[103] It is also worth noting that 403's language implies that (the reverse of Rule 702)[104] the burden is on the *opponent* of the evidence to justify its exclusion.[105] In practice, however, a fair number of courts appear willing to put a thumb on the scale in excluding defense polygraphs.

Some Intractable Resistance to Polygraphs

One stark example of the intractability of some courts' resistance to polygraph evidence is *United States v. Posado*,[106] otherwise notable for reversing a circuit *per se* ban in the wake of *Daubert*.[107] In *Posado*, three defendants were arrested at Houston International Airport after officers opened their luggage and found a large quantity of cocaine. In a motion to suppress, the defendants supplied affidavits alleging that the officers arrested them and searched their bags *before* attempting to get their consent. The defense backed up these claims with an offer to stipulate in advance to the admissibility of polygraph examinations of all three defendants. The prosecutor declined.

Each defendant submitted to two examinations administered by separate experts, including the former chief of the FBI's national polygraph unit. In the six examinations, the defendants showed "no deception" when answering "no" to questions that included the following: "Before opening that first bag, did any police official ever ask for permission to search any of those bags?" and "Did you deliberately lie in your affidavit?"[108] The odds that the polygraph results were *all* inaccurate in this circumstance are infinitesimal.[109] The trial judge, although "a great believer in polygraph," did not believe that it "belongs in the courtroom, either before the court or before a jury … and [he did not want to] get into the same battle of experts that we get into in so many areas of the law." He excluded the results.[110]

The Fifth Circuit reversed and remanded for a hearing under *Daubert*, noting "factors in the record which substantially boost the probative value of this [polygraph] evidence."[111] These factors "call[ed] the officers' recollection of events into question," and included (1) the inability of the only "Spanish-speaking" officer on scene to read the Spanish consent form at both the probable cause and suppression hearing, (2) that officer's testimony that the defendants held suspicious "one-way" tickets when the tickets were actually round trip, (3) testimony of a (disinterested) airline employee that contradicted the officers' account of the retrieval of the baggage, and (4) a finding by another district judge that the testifying officer had falsely testified about a consent search in a separate case (leading to the exclusion of that evidence).[112]

On remand, the district court held an evidentiary hearing, again excluded the polygraph evidence, noting in a simple docket entry: "Defts' request to admit polygraph evidence is denied pursuant to Rule 702 and Rule 403 of the Federal Rules of Evidence and Defts' motion to suppress is denied."[113] Four conclusions appear clear from the record: (1) the defendants actually committed the drug-smuggling offense for which they were charged, (2) the drugs used to convict them were illegally seized, (3) the trial judge was willing to exclude polygraph evidence he likely thought was valid, and (4) the judge overlooked an officer's probable perjury to reach the desired outcome. Remarkably, Rule 403 was invoked although there was no jury to prejudice, confuse, or mislead.

The Government Uses Polygraphs — but Does Not Need Polygraph Evidence

Key to the government's opposition to a defendant's use of exculpatory polygraphs is the fact that the prosecution can present the testimony of the officer who obtained an incriminating statement following a failed test under Fed. R. Evid. 801(d)(2); i.e., the government does not need polygraph evidence and does not want the defense to use it. Every criminal defense attorney is familiar with investigators' use of polygraphs as a tool to extract admissions from suspects. A failed test followed by a confession often results in a negotiated disposition. When negotiations fail, the government need only put the officer who took the statement on the witness stand to recount every ugly detail for the jury.[114] The polygraph becomes irrelevant. Having this enormous advantage likely explains the government's consistent opposition to any courtroom use of polygraph results, where, in argument, the technique is dubbed junk science unfit for jury consumption. This pitch did not carry the day, however, in the case of Jesus Angulo, the cook on the *Hope II*.

The Court Admitted Angulo's Polygraph

The district court admitted Angulo's polygraph evidence subject to restrictions designed to minimize confusion and misuse of the testimony by the jury. The district court in Tampa admitted Mr. Angulo's defense polygraph evidence.[115] The judge adopted restrictions on the defense polygraph patterned after the Arizona district court's (in *Crumby*),[116] limiting the defendant's and expert's testimony to the facts that the defendant took a polygraph examination in the case and passed it, without

details of the specific test questions and answers.[117] So, if the defendant testified and his credibility impeached, he was entitled to present testimony that "he was willing to take a polygraph and in fact, passed the examination."

Forbidding testimony about the precise questions means that the "jury [would] not be permitted to infer from the test, that because the defendant passed the test, he could not have committed the crime, [but] the jury [would be permitted] to draw the inference that the defendant took the test because he believed he was innocent."[118] The examiner would be permitted to testify as to the exam procedures, the validity of the test, and the fact that the defendant passed — again without reference to the specific questions and answers. This procedure was designed to allow the defense to present what the court saw as evidence "highly probative … of a criminal defendant's propensity for truthfulness with respect to the issues in the case" while forbidding testimony about the ultimate issue, which the court saw as "highly prejudicial."[119]

The Government Dismissed After Crumby's Polygraph Was Admitted

In the face of the polygraph's admission in Arizona, the government dismissed the charges against David Crumby, but Jesus Angulo was not so fortunate. Happily for Mr. Crumby, the judge's admission of the defense polygraph prompted the government to dismiss.[120] Mr. Angulo, in Tampa, Florida, was not so lucky. The trial judge refused to sever Mr. Angulo, notwithstanding the fact that his three co-defendants had no polygraph evidence to present.[121] Angulo was permitted to testify that he voluntarily took a polygraph examination concerning his statement and passed it. The examiner was allowed to educate the jury on the technique, how the test was conducted, that the government declined the opportunity to test Angulo, and that he passed.[122]

After a two-week jury trial, Angulo was convicted along with the captain of the freighter and two other crewmembers.[123] His conviction at least demonstrated that fears of the jury's role being "usurped" by a machine were here, at least, unwarranted. On appeal, the defense is primarily challenging the government's conduct of Angulo's cross-examination, including the prosecution's dramatic finale, leveling an unfounded accusation that the ship's cook was the cartel's personal enforcer or "load guard" on this smuggling venture.[124] Whatever the Eleventh Circuit decides, it cannot be claimed that Angulo's jury was distracted, confused, or forfeited its role as "lie detector."

Conclusion

The polygraph can be a useful and versatile defense tool if used properly. While its introduction at trial is presently an uphill battle,[125] its use at sentencing presents fewer obstacles. Whether used to corroborate a defendant's or other witness's truthfulness at trial or to support a defense position on a sentencing issue, it is important to choose a highly-qualified examiner, carefully craft the relevant questions, and prepare very thoroughly for an evidentiary hearing that must include a qualified scientific expert. More routine use of defense polygraphs and better *Daubert* advocacy may make admission of this evidence easier for all practitioners.

Federal and state courts would do well to draw on the 30 years' experience with courtroom use of polygraphs encompassed in the unanimous 2004 decision of the state supreme court in *Lee v. Martinez*. The state's experience vindicates the liberalization of rules on expert testimony as expressed in *Daubert* and FRE 702, prompting the court to endorse the observations of "one notable commentator":

> Universality of education and the almost instantaneous dispersal of information through modern technology have created a citizenry with a remarkable and historically unique breadth of knowledge, perception, and sophistication. These mature men and women should be treated with the respect they deserve. Excluding information on the ground that jurors are too ignorant or emotional to evaluate it properly may have been appropriate in England at a time when a rigid class society created a yawning gap between royal judges and commoner jurors, but it is inconsistent with the realities of our modern American informed society and the responsibilities of independent thought in a working democracy. Jack B. Weinstein & Margaret A. Berger, *Weinstein's Federal Evidence* xix (2d ed. 2003).[126]

The essential point is that the polygraph is as accurate as or more accurate than many of the diagnostic medical tests seen in courtrooms every day. It is far more accurate than eyewitness testimony, and juries can properly weigh polygraph evidence in the context of the other evidence presented at trial. Most courts presently have too much discretion in judging the *science* behind polygraphs.[127] There is legitimate room for a trial judge's scrutiny of an examiner's qualifications, the test procedures used, the relevance of the questions asked, and the manner in which the evidence is presented. However, it is no more reasonable to reject the *science* underlying polygraph evidence than it is to require the same for DNA, ultrasound, or x-rays.

Some judges seem to have personal *per se* bans on polygraph evidence. A defendant's opportunity to present what might be the only available corroboration for his or a key defense witness's testimony appears to depend far too much on the judge's preconceived ideas about this particular evidence. While *Scheffer* means that excluding a properly administered polygraph *may not*, for now, violate a defendant's Sixth Amendment right to present a defense, exclusion comes close enough to warrant very serious deliberation by civilian courts.[128]

Exclusion means that a defendant asserting factual innocence is prevented from presenting independent, scientific, corroboration of "consciousness of innocence." The plain language of *Daubert* and its application to other routinely admitted expert evidence strongly favors admissibility. Testing polygraph evidence through the "traditional means" at trial may either help the defendant, or it may reveal what appears to be an attempt to con the jury, which is almost always fatal to the defense. In the end, the jury retains its role as the ultimate "lie detector." Admission at least vindicates a defendant's constitutional right to present a full defense in the face of the government's awesome power and resources — particularly the prosecutor's ability to trade years of its witnesses' lives for incriminating testimony while simultaneously conferring the state's imprimatur.

The nanny who denies murdering a child and faces trial based on *shaky but admissible* brain scan evidence, the parent who denies molesting a child but faces a questionable expert on "grooming," or the cook on a freighter facing an effective life sentence in a prosecution based on plea-bargained testimony all deserve a zealous defense that includes

any legitimate expert evidence reasonably available. None should be denied what may be the only meaningful defense evidence at hand merely because of a judge's personal biases or a prosecutor's desire to tilt the playing field. For now, judging polygraph admissibility currently falls short of "Equal Justice Under Law,"[129] but scientific progress and persistent, skilled defense advocacy may be turning the tide.

Notes

1. In the Eleventh Circuit, trial courts have discretion to admit polygraph evidence to corroborate or impeach testimony, provided the opposing party is given sufficient notice, an opportunity to conduct its own test, and the requirements of FRE 608 are met. *United States v. Piccinonna*, 885 F.2d 1529, 1536 (11th Cir. 1989) (en banc).

2. In two of the case examples (*United States v. Laura Leyva*, Case No. 8:14-cr-00107 (M.D. Fla.) and *United States v. Jesus Angulo-Mosquera*, Case No. 8:14-cr-00379 (M.D. Fla.)), the author served as counsel of record for the defendants.

3. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

4. Declaration of Dr. David Raskin (*infra* note 45), Doc. 95-1 at 2–3 (Dec. 16, 2014) [hereinafter Raskin Decl., Doc. 95-1], in *Angulo-Mosquera*, *supra* note 2.

5. *Id.*

6. Yigal Bander, *United States v. Posado: The Fifth Circuit Applies Daubert to Polygraph Evidence*, 57 La. L. Rev. 691, 693 (1997) (citing 22 Charles A. Wright & Kenneth W. Graham, Jr., Federal Practice and Procedures § 5169 (1978).

7. *Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923) (holding that "expert opinion based on a scientific technique is inadmissible unless the technique is 'generally accepted' as reliable in the relevant scientific community"; *Frye* as characterized in *Daubert*, 509 U.S. at 584; the D.C. Court of Appeals excluded a crude "polygraph" precursor that measured changes in blood pressure).

8. Even so, the circuit courts remain generally skeptical and unlikely to be sympathetic to a defendant whose polygraph is excluded. *See, e.g., United States v. Montgomery*, 635 F.3d 1074, 1094 (8th Cir. 2011) (internal quotes and citation omitted) ("Although there is no per se ban on the use of polygraph evidence in this circuit, our cases make clear that polygraph evidence is disfavored.").

9. *United States v. Prince-Oyibo*, 320 F.3d 494, 501 (2003).

10. *United States v. Scheffer*, 523 U.S. 303 (1998).

11. *Lee v. Martinez*, 96 P.3d 291 (N.M. 2004). (New Mexico is unique in that polygraph evidence has been routinely admitted in its courts for almost 30 years, governed by specific rules.).

12. *State v. Alexander*, 364 P.3d 458 (Alaska App. 2015) reversed a 50-year ban on polygraphs, after adopting the federal *Daubert* standard for scientific evidence. In 2015 Alaska allowed the use of polygraph evidence in a criminal case. In South Carolina, there is no per se ban on polygraphs, which is "rarely admitted," but the evidence is to be evaluated using evidentiary rules similar to the federal rules. *Lorenzen v. State*, 657 S.E.2d 771, 778 (S.C. 2008).

13. *Klayman v. Segal*, 783 A.2d 607 (D.C. 2001).

14. Of course, the practitioner considering a defense polygraph will want to research the current law in the relevant jurisdiction. With the exception of Alaska, which reversed its ban on polygraph evidence after adopting the *Daubert* standard for scientific evidence (*State v. Alexander*, 364 P.3d 458 (Alaska App. 2015)), a good list of admissibility in other states is available in *State v. A.O.*, 965 A.2d 152, 161–63 (N.J. 2009) (affirming New Jersey's rule allowing only polygraphs stipulated by the parties). ("Twenty-eight* states bar the admission of polygraph evidence outright. *Pulakis v. State,* 476 *P.*2d 474, 479 (Alaska 1970)*; *Bloom v. People,* 185 P.3d 797, 807 (Colo. 2008); *State v. Porter,* 241 Conn. 57, 698 *A.*2d 739, 742 (1997); *State v. Okumura,* 78 Hawai'i 383, 894 P.2d 80, 94 (1995); *People v. Jackson,* 202 Ill.2d 361, 269 Ill. Dec. 481, 781 N.E.2d 278, 282 (2002); *Morton v. Commonwealth,* 817 S.W.2d 218, 221-22 (Ky. 1991); *State v. Legrand,* 864 So.2d 89, 98 (La. 2003), *cert. denied,* 544 U.S. 947, 125 S. Ct. 1692, 161 L.Ed.2d 523 (2005); *State v. Harnish,* 560 A.2d 5, 8 (Me. 1989); *State v. Hawkins,* 326 Md. 270, 604 A.2d 489, 492 (1992); *Commonwealth v. Martinez,* 437 Mass. 84, 769 N.E.2d 273, 278 (2002); *People v. Jones,* 468 Mich. 345, 662 N.W.2d 376, 382 (2003); *State v. Jones,* 753 N.W.2d 677, 690 (Minn. 2008); *State ex rel. Kemper v. Vincent,* 191 S.W.3d 45, 49 (Mo. 2006); *State v. Hameline,* 344 Mont. 461, 188 P.3d 1052, 1055-56 (2008); *Mathes v. City of Omaha,* 254 Neb. 269, 576 N.W.2d 181, 184 (1998); *Petition of Grimm,* 138 N.H. 42, 635 A.2d 456, 464 (1993); *State v. Fleming,* 350 N.C. 109, 512 S.E.2d 720, 738 (1999); *Thornburg v. State,* 985 P.2d 1234, 1241-42 (Okla. Crim. App. 1999), *superseded by statute on other grounds by* Okla. Stat. tit. 12 § 2403 (2008); *Commonwealth v. Brockington,* 500 Pa. 216, 455 A.2d 627, 629 (1983); *State v. Werner,* 851 A.2d 1093, 1104 (R.I. 2004); *Sabag v. Continental South Dakota,* 374 N.W.2d 349, 352 (S.D. 1985); *State v. Damron,* 151 S.W.3d 510, 515-16 (Tenn. 2004); *Nesbit v. State,* 227 S.W.3d 64, 66 n.4 (Tex. Crim. App. 2007); *State v. Hamlin,* 146 Vt. 97, 499 A.2d 45, 53-54 (1985); *Elliott v. Commonwealth,* 267 Va. 396, 593 S.E.2d 270, 282-83 (2004); *State v. Lewis,* 207 W.Va. 544, 534 S.E.2d 740, 744 (2000); *State v. Dean,* 103 Wis.2d 228, 307 N.W.2d 628, 653 (1981); *see also People v. Angelo,* 88 N.Y.2d 217, 644 N.Y.S.2d 460, 666 N.E.2d 1333, 1335 (1996) (polygraph evidence properly excluded where there continues to be no showing that such evidence is generally accepted as reliable by scientific community)." *As noted above, Alaska has reversed its ban, changing the number of states banning polygraphs to 27, *State v. Alexander*, 364 P.3d 458 (Alaska App. 2015). Admissibility may have changed in other states also since 2009. However, two prominent polygraph scientists, Dr. David Raskin and Charles Honts, advised just prior to publication that they are unaware of any other legislation or appellate decisions changing polygraph admissibility in other jurisdictions. Over the past several decades, these two scientists have either consulted on or kept abreast of polygraph litigation nationwide.

15. A "stipulated" polygraph generally means that the parties agree in advance that the results will be admissible. *State v. Valdez*, 371 P.2d 894 (Ariz. 1962), pioneered the use of stipulated polygraphs. *See State v. A.O.*, 965 A.2d 152, 162 (N.J. 2009). ("Eighteen [states] limit admission of polygraph evidence to cases where both parties stipulate to its use. *Wynn v. State,* 423 So.2d 294, 297 (Ala. Crim. App. 1982); *State v. Hoskins,* 199 Ariz. 127, 14 P.3d 997, 1014 (2000); *Ramaker v. State,* 345 Ark. 225, 46 S.W.3d 519, 525 (2001); *People v. Wilkinson,* 33 Cal.4th 821, 16 Cal.Rptr.3d 420, 94 P.3d 551, 564-67 (2004); *Melvin v. State,* 606 A.2d 69, 71 (Del. 1992); *Davis v. State,* 520 So.2d 572, 573-74 (Fla. 1988); *Thornton v. State,* 279 Ga. 676, 620 S.E.2d 356, 360 (2005); *State v. Perry,* 139 Idaho 520, 81 P.3d 1230, 1235 (2003); *Jackson v. State,* 735 N.E.2d 1146, 1152 (Ind. 2000); *State v. Countryman,* 573 N.W.2d 265, 266 (Iowa 1998); *Wilkins v. State,* 286 Kan. 971, 190 P.3d 957, 970 (2008); *Rose v. State,* 123 Nev. 24, 163 P.3d 408, 417 (2007); *State v. Weatherspoon,* 583 N.W.2d 391, 393 (N.D. 1998); *State v. Souel,* 53 Ohio St. 2d 123, 372 N.E.2d 1318, 1323-24 (1978) (only for corroboration and impeachment); *State v. Brown,* 297 Or. 404, 687 P.2d 751, 776 n.35 (1984) (citing *State v. Bennett,* 17 Or. App. 197, 521 P.2d 31, 33 (1974)); *State v. Crosby,* 927 P.2d 638, 642 (Utah 1996); *State v. Thomas,* 150 Wash.2d 821, 83 P.3d 970, 989-90 (2004); *Schmunk v. State,* 714 P.2d 724, 731 (Wyo. 1986).").

16. *See* Fed. R. Evid. 702, "Testimony by Expert Witnesses." The rule provides:

A witness who is qualified as an expert by knowledge, skill, experience, training or

education may testify in the form of an opinion or otherwise if:

(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

(b) the testimony is based on sufficient facts or data;

(c) the testimony is the product of reliable principles and methods; and

(d) the expert has reliably applied the principles and methods to the facts of the case;

Fed. R. Evid. 403, "Excluding Relevant Evidence for Prejudice, Confusion, Waste of Time, or Other Reasons," provides:

> The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.

Analysis under FRE 403 is intended to begin with a strong *presumption in favor of* admissibility, *minimizing* estimates of prejudicial impact. The language of 403 implies that unlike FRE 702, where the burden is on the proponent, FRE 403 presumes relevance and puts the burden on the opponent of the evidence. *See infra* notes 99–100 and accompanying text. *See also United States v. Black,* 78 F.3d 1, 7 (1st Cir. 1996) (polygraphs generally inadmissible); *United States v. Santiago-Gonzalez,* 66 F.3d 3, 6 (1st Cir. 1995) (admissible if agreed to in plea bargain); *United States v. Hester*, 2016 WL 7436513 at *3 (2d Cir. Dec. 22, 2016) (Summary Order) ("While we have never held that polygraph evidence is *per se* inadmissible, we have upheld its exclusion on grounds that it may be unreliable, unfairly prejudicial, or misleading to the jury. *See United States v. Kwong,* 69 F.3d 663, 668 (2d Cir. 1995) (balancing test under Rule 403)); *United States v. Lee,* 315 F.3d 206, 214 (3d Cir. 2003) (noting lack of per se exclusionary rule and admissibility to rebut claim of coerced confession but declining to rule on admissibility at trial or revocation hearing), *Petition for Certiorari Filed,* (June 2, 2003) (No. 02-11166); *United States v. Posado,* 57 F.3d 428, 434 (5th Cir. 1995) (must meet Rule 702 and Rule 403 standards); *United States v. Thomas,* 167 F.3d 299, 308–09 (6th Cir. 1999) ("This court has never adopted a per se prohibition on the introduction of polygraph evidence. … We do, however, generally disfavor [them]. … We have repeatedly held that unilaterally obtained polygraph evidence is almost never admissible under Evidence Rule 403."); *United States v. Lea,* 249 F.3d 632, 640 (7th Cir. 2001) ("[W]e continue to hold that a district court need not conduct a full *Daubert* analysis in order to determine the admissibility of standard polygraph evidence, and instead may examine the evidence under a Rule 403 framework. Nonetheless, we posit that the factors outlined by the Supreme Court in *Daubert* remain a useful tool for gauging the reliability of the proffered testimony, as reliability may factor into a 403 balancing test."); *United States v. Gill,* 513 F.3d 836, 846 (8th Cir. 2008) ("Polygraph results are rarely admissible [because they have] long been considered of dubious scientific value" (quotation and citation omitted)); *United States v. Cordoba,* 194 F.3d 1053 (9th Cir. 1999) (must meet 702 and 403), *see also United States v. Ramirez-Robles*, 386 F.3d 1234, 1245–46 (9th Cir. 2004) (affirming exclusion of polygraph evidence under Rule 704 (one test question was improper expert testimony on mental state and Rule 403 ("the significance" of two of the questions "combined with the powerful persuasive power of polygraph testimony" was sufficient to exclude without a *Daubert* hearing); *United States v. Call,* 129 F.3d 1402 (10th Cir. 1997) (evidence properly excluded under 403 where requested *Daubert* hearing not held).

17. *United States v. Piccinonna*, 885 F.2d 1529, 1537 (11th Cir. 1989) (en banc).

18. *See United States v. Henderson*, 409 F.3d 1293, 1303 (11th Cir. 2005); research of decisions post-*Henderson* failed to reveal any Eleventh Circuit holding that a district court abused its discretion in excluding polygraph evidence.

19. *United States v. Ghertler*, 605 F.3d 1256, 1269 (11th Cir. 2010)."[T]he court may consider relevant information without regard to its admissibility under the rules of evidence applicable at trial, provided that the information has sufficient indicia of reliability to support its probable accuracy." (citing USSG § 6A1.3(a)).

20. *Piccinonna*, *supra* note 17.

21. *Leyva*, *supra* note 2.

22. *Id.*

23. The prosecutor threatened to indict the few available defense witnesses. While Leyva's counsel did not believe these threats to be credible, the defendant was unwilling to ask the witnesses (one of whom was the defendant's sick, elderly father, a retired physician) to testify under threat of their prosecution. Ms. Leyva was represented by the author. See note 2.

24. *See* Transcr. of Day Two of Sentencing Hrg., Doc. 90 at 48–49, in *Leyva*, *supra* note 2.

25. *Id.*

26. *See id.*

27. *See* USSG § 3C1.1, comment. (n.4(B)) (cited in Govt's Sent. Memo. Concerning Defense Guidelines Application Objections to the Presentence Report filed 1/22/16, Doc. 130 at 5, in *United States v. Jasen*, Case No. 8:15-cr-00214 (M.D. Fla.).

28. *See Jasen*, *supra* note 27.

29. *See id.*, Transcr. of Sentencing Hearing, Doc. 191 at 29.

30. *Id.* at 9–11, 72–73, 85.

31. Also referred to as the "Control Question Technique." For clarity, the more accepted "Comparison Question Test" or "CQT" is used in this article.

32. *United States v. Gilliard*, 133 F.3d 809, 813–14 (11th Cir. 1998) (describing the Comparison Question Test (CQT) commonly used, as well as other polygraph techniques.;

33. *See also Lee v. Martinez*, *supra* note 11, for a comparison of polygraph techniques ("The [CQT] is the most widely used questioning technique for evidentiary polygraph examinations.").

34. One example of an experiment gone awry can be found in *Gilliard*, *supra* note 32. In a Medicare fraud case, the defendant passed a test by a highly respected polygraph scientist, Dr. Charles Honts, who used a "hybrid technique" combining two accepted forms of the CQT in an unusual procedure. A federal magistrate judge determined that the polygraph should be admitted after an evidentiary hearing. The government objected, and, at a hearing conducted by the district judge, presented expert testimony showing that "the hybrid technique is disfavored not only by the government's experts, but also by federal government agencies." Interestingly, in the litigation the government acknowledged that the CQT was based on "good science." In the end, though, the circuit court affirmed the district court's exclusion of the polygraph under Rules 702 and 403, in large part based on the use of the unproven hybrid technique. *Id.* at 813–16.

35. *United States v. Kwong*, 69 F.3d 663 (2d Cir. 1995).

36. *Kwong*, 69 F.3d at 667–69.

37. *United States v. Frazier*, 387 F.3d 1244, 1260–63 (11th Cir. 2004) (en banc).

38. *Angulo-Mosquera*, *supra* note 2.

39. Each co-defendant testifying for the government received a sentence of 63 months; each defendant who stood trial received 235 months in prison. Realizing that he faced steep odds in *proving* he was not involved in the smuggling, Angulo might well have pled guilty for leniency except for the fact that, being factually

innocent, he was *unable* and unwilling to "cooperate" in the manner the government would have expected — making his decision to go to trial truly a Hobson's choice. *See Angulo-Mosquera*, *supra* note 2.

40. The current standard for polygraphs requires that the entire examination be recorded in the manner used with Angulo-Mosquera. *See* Transcr. of testimony of Dr. David Raskin, at *Daubert* hearing, Doc. 508 at 12–14 (Dec. 23, 2014) ("Raskin *Daubert* Test., Doc. 508"), in *Angulo-Mosquera*, *supra* note 2.

41. *United States v. Henderson*, 409 F.3d 1293, 1302 (11th Cir. 2005) (citing *Gilliard*, 133 F.3d at 811–12 and *Piccinonna*, 885 F.2d at 1536).

42. While *Piccinonna* (885 F.2d at 1536) requires the opposing party be given the opportunity to conduct its own test, the government declined Angulo-Mosquera's offer. Polygraph experts generally recommend that the opposing party be given full access to the full recording of the original test to evaluate, rather than conduct a second test. Dr. David Raskin explained that a second test on the same issue is problematic. In 1989, when *Piccinonna* was decided, audio/video recording of polygraphs was not common practice. *See* Raskin *Daubert* Test., Doc. 508 at 14, in *Angulo-Mosquera*, *supra* note 2.

43. *Henderson*, 409 F.3d at 1302.

44. *Daubert*, 509 U.S. at 592 n.10; FED. R. EVID. 702 advisory committee's note (2002).

45. Dr. David C. Raskin received his Ph.D. in psychology from the University of California, Los Angeles (UCLA) in 1963. He has specialized in experimental psychology, human psychophysiology, quantitative methods, and statistical analysis. He has served on the faculties of UCLA, Michigan State University, the University of British Columbia, and the University of Utah, where he holds the rank of Professor Emeritus of Psychology. For more than 51 years, he has conducted and published scientific research in human psychophysiology. For more than 44 years, he has conducted laboratory and field research on polygraph techniques for the detection of deception, taught university and applied courses about polygraph techniques, trained government and law enforcement polygraph examiners, and published extensively on polygraph techniques. He has served as an expert witness in approximately 250 criminal and civil cases in the United States, Canada, and Sweden. Raskin Decl., Doc. 95-1 at 1, in *Angulo-Mosquera*, *supra* note 2.

46. *Supra* note 44.

47. "[*Daubert* does not] presume to set out a definitive checklist or test." However, it identifies five factors that a court should evaluate concerning the theory or technique at issue: (1) whether it can be and has been tested, (2) whether it has been subjected to peer review or publication, (3) its known or potential rate of error, (4) the existence and maintenance of applicable standards controlling its operation, and (5) its general acceptance within the relevant scientific community. *Daubert*, 509 U.S. at 593–94.

48. Dr. Raskin, *supra* note 45, estimated he has testified approximately 250 times in federal and state courts in the United States, as well as Canada and Sweden.

49. Certainly, the science and research underlying the modern polygraph are more than adequate for admissibility in comparison with the foundation for other expert testimony discussed in this article, e.g., expert opinion on "future dangerousness" in death cases, and forensic brain-scan evidence in Shaken Baby Syndrome cases. *See infra* notes 90–94 and accompanying text. The manner in which a *particular examination* was conducted, the examiner's qualifications, and the relevant questions used are always subject to challenge under both Rules 702 and 403. *See Lee v. Martinez*, *supra* note 11.

50. *See* DAVID L. FAIGMAN, DAVID H. KAYE, MICHAEL J. SAKS & JOSEPH SANDERS, SCIENCE IN THE LAW: STANDARDS, STATISTICS AND RESEARCH ISSUES, Section 1-3.4.2, at 35 (2002).

51. *Lee v. Martinez*, 96 P.3d 291 (N.M. 2004).

52. The court first found polygraphs admissible in *State v. Dorsey*, 539 P.2d 204 (N.M. 1975). The state codified the requirements for admissibility in Rule 11-707 in 1983.

53. *Lee v. Martinez*, 96 P.3d at 293–94 (*supra* note 11) (reversing a state district judge tasked with holding a full "evidentiary hearing as to the scientific reliability of polygraph evidence").

54. NMRA 11-707, first adopted June 1, 1983, (A) defines the relevant terms, (B) minimum qualifications for examiners, and, (C) test procedures (currently requiring recording in full of the entire exam, including pretest and any post-test interview). NMRA 11-707 (2016).

55. *Lee v. Martinez*, 96 P.3d at 294.

56. *The Polygraph and Lie Detection* (2003), *available at* https://www.nap.edu/download/ 10420. The full title of the committee that produced this report is "Committee to Review the Scientific Evidence on the Polygraph, Board on Behavioral, Cognitive and Sensory Sciences and Committee on National Statistics, Division of Behavioral and Social Sciences and Education, National Research Council of the National Academies." The National Academy of Science is "a private, nonprofit society of distinguished scientists and engineers that advises the federal government on scientific and technical matters." *Lee v. Martinez*, 96 P.3d at 295. This should universally be considered an objective authority and makes the court's findings useful in almost any admissibility proceedings.

57. *See Lee v. Martinez*, 96 P.3d at 298–306 (characterized as "*Alberico* Factors" (*State v. Alberico*, 861 P.2d 192 (N.M. 1993)).

58. *State v. Alexander*, 364 P.3d 458, 464 (Alaska App. 2015) ("[T]he accuracy rate for the [CQT] was still in line with the accuracy rates of other commonly admitted forms of scientific evidence — evidence such as fingerprint analysis, handwriting analysis, and eyewitness testimony.").

59. *Lee v. Martinez*, 96 P.3d at 305–06.

60. *Id.* at 306.

61. *Daubert*, 509 U.S. at 596 (Blackmun, J., dissenting) (emphasis added).

62. *Id*.

63. "The United States government is the most frequent user of polygraph tests." Raskin Decl., Doc. 95-1 at 23–24, in *Angulo-Mosquera*, *supra* note 2. They are used in "vet[ting] employees … criminal investigations, counterintelligence, foreign intelligence, national security screening. … In Fiscal Year 2011, the Department of Defense ran 43,434 polygraph examinations (this does not include certain classified programs or the NSA whose polygraph activities are classified). … [T]he Department of Defense places heavy reliance on the polygraph to detect hostiles who attempt to penetrate our national security system." *Id.*

64. *Lee v. Martinez*, 96 P.3d at 306.

65. *See* Trial Transcr., testimony of Mr. James Orr (Vol. VII, 10/22/15), Doc. 499 at 118–20, in *Angulo-Mosquera*, *supra* note 2.

66. *United States v. Scheffer,* 523 U.S. 303, 318 (1998).

67. Raskin *Daubert* Test., Doc. 508 at 38, in *Angulo-Mosquera*, *supra* note 2.

68. In *United States v. Marshall*, 986 F. Supp. 747 (E.D.N.Y. 1997), the government polygraphed an incarcerated defense witness and used the failed test to rebut a defense claim at sentencing. In *United States v. Smellie*, No. 10-10950 (11th Cir. Nov. 30, 2010) (unpublished), the court affirmed a district court that allowed the government to use a defendant's (mandatory) failed polygraph to justify denying her the benefit of the "safety valve" (18 U.S.C. § 3553 (f)).

69. *See, e.g.,* Govt's Mot. in Limine to Exclude Polygraphy Testimony (Including under *Daubert*), filed 8/18/15, Doc. 56 at 5, in *Jasen*, *supra* note 27.

70. For example, in the polygraph studies, test results were compared with external criteria of truth or deception; ultrasound or x-rays were compared with actual medical findings (e.g., malignant tumors found); DSM diagnoses were compared with more thorough forensic evaluations. PHILIP E. CREWSON, A COMPARATIVE ANALYSIS OF POLYGRAPH WITH OTHER SCREENING AND DIAGNOSTIC TOOLS (DoDPI01-R-0003). DEPARTMENT OF DEFENSE POLYGRAPH

INSTITUTE. DTIC NO. ADA403870. (Cited in Raskin Decl., Doc. 95-1 at 30) (Dec. 18, 2014), in *Angulo-Mosquera*, *supra* note 2. Useful charts demonstrating the high reliability of the polygraph using the CQT are available in Charles R. Honts & Bruce D. Quick, *The Polygraph in 1995: Progress in Science and Law*, 71 N. D. L. REV. 987, 1018–19 (1995).

71. Raskin Decl., Doc. 95-1 at 8, in *Angulo-Mosquera*, *supra* note 2, (citing four published field studies (*id.* at n.12), also noting that "inconclusive" results were excluded (*id.* at n.13) because they were not "decisions" about whether a subject was deceptive).

72. *See* Raskin Decl., Doc. 95-1 at 8, in *Angulo-Mosquera*, *supra* note 2.

73. Raskin Decl., Doc. 95-1 at 11, in *Angulo-Mosquera*, *supra* note 2, (citing Charles R. Honts & Mary V. Perry, *Polygraph Admissibility Changes and Challenges*, 16 LAW & HUM. BEHAV. 357 (1992), and Charles R. Honts & Bruce D. Quick, *The Polygraph in 1995: Progress in Science and Law*, 71 N. D. L. REV. 987 (1995).

74. *Id*.

75. *See* Jan Widacki & Frank Horvath, *An Experimental Investigation of the Relative Validity and Utility of the Polygraph Technique and Three Other Common Methods of Criminal Identification*, 23 J. FORENSIC SCI. 596, 596–600 (1978) (cited in *United States v. Scheffer*, 523 U.S. 303, 334 n.24 (1998) (Stevens, J., dissenting) (discussing this study); (also cited in *State v. Alexander*, 364 P.3d 458, 464 n.4 (Alaska App. 2015).

76. *United States v. Crumby*, 895 F. Supp. 1354, 1358 (D. Ariz. 1995) (quoting *Daubert v. Merrell Dow Pharmaceuticals*, 43 F.3d 1311, 1317 (9th Cir. 1995) (*"Daubert II"*).

77. *Crumby*, 895 F. Supp. 1354.

78. *Daubert II*, 43 F.3d 1311.

79. *Crumby*, 895 F. Supp. at 1360–61.

80. *See Daubert II*, 43 F.3d at 1317–19.

81. *United States v. Scheffer*, 523 U.S. 303 (1998) (finding that presidential rule banning polygraph evidence in military justice courts was constitutional — only as applied, not facially).

82. *See United States v. Scheffer*, 523 U.S. 303, 311–12 (1998). Justice Clarence Thomas wrote the majority opinion containing the comment on the lack of consensus, also noting that only the Fourth Circuit has a *per se* ban on polygraph evidence. Many states also exclude it, but New Mexico routinely admits it (N.M. RULE EVID. § 11-707).

83. Justice Anthony Kennedy wrote a concurrence joined by three other justices (*Scheffer*, 523 U.S. at 318–20), and on several important issues, including "jury usurpation" and the collateral distraction of juries, these four joined a dissent by Justice Stevens:

> [I]t seems the principal opinion overreaches when it rests its holding on the additional ground that the jury's role in making credibility determinations is diminished when it hears polygraph evidence. I am in substantial agreement with Justice Stevens' observation that the argument demeans and mistakes the role and competence of jurors in deciding the factual question of guilt or innocence. In the last analysis the principal opinion says it is unwise to allow the jury to hear "a conclusion about the ultimate issue in the trial." I had thought this tired argument had long since been given its deserved repose as a categorical rule of exclusion.

Id. at 318–19.

84. "The literature consistently shows that juries are not inclined to give undue weight to polygraph evidence." Raskin Decl., Doc. 95-1 at 21–22 in *Angulo-Mosquera*, *supra* note 2, (citing Charles R. Honts & Mary V. Perry, *Polygraph Admissibility Changes and Challenges*, 16 LAW & HUM. BEHAV. 357 (1992); N.J. Brekke, P.J. Enko, G. Clavet & E. Seelau, *The Impact of Nonadversarial Versus Adversarial Expert Testimony*, 15 LAW & HUMAN BEHAV. 451 (1991); S.C. Carlson, M.S. Passano & J.A. Jannunzzo, *The Effect of Lie Detector Evidence on Jury Deliberations: An Empirical Study*, 5 J. POLICE SCI. & ADMIN. 148 (1977); A. Cavoukian & R.J. Heslegrave, *The Admissibility of Polygraph Evidence in Court: Some Empirical Findings*, 4 LAW & HUMAN BEHAV. 117 (1979); A. Markwart & B.E. Lynch, *The Effect of Polygraph Evidence on Mock Jury Decision-Making*, 7 J. POLICE SCI. & ADMIN. 324 (1979); Bryan Meyers & Jack Arbuthnot, *Polygraph Testimony and Juror Judgments: A Comparison of the Guilty Knowledge Test and the Control Question Test*, 27 J. APPLIED SOCIAL PSYCHOL. 1421 (1997).

85. Justice John Paul Stevens, in his dissent, objected that the "potential burden of collateral proceedings … is a manifestly insufficient justification for a categorical exclusion of expert testimony." *Scheffer*, 523 U.S. at 337. Justice Anthony Kennedy, writing for himself and three other justices, explicitly refused to endorse the section (II-C) of the principal opinion (*id.* at 314–15), which contains the objection to the collateral litigation of polygraphs. "Justice Kennedy, with whom Justice O'Connor, Justice Ginsburg, and Justice Breyer join. … I join Parts I, II-A, II-D and the opinion of the Court." *Id.* at 318.

86. *See* Argument of AUSA Joseph Ruddy, at Dec. 23, 2014, *Daubert* hearing, Doc. 508 at 38, in *Angulo-Mosquera*, *supra* note 2.

87. *See* N.M. RULE EVID. § 11-707.

88. *Scheffer*, 523 U.S. at 312, 317.

89. *Id.* at 320–39.

90. Justice Anthony Kennedy wrote a concurrence joined by three other justices (*Scheffer*, 523 U.S. at 318–20). The four joined Justice Stevens in opining that the ban on polygraph evidence was bad policy. However, the four were unwilling to hold that the ban was unconstitutional.

91. *Id.* at 318.

92. Edward J. Imwinkelried, *A Defense of the Right to Present Defense Expert Testimony: The Flaws in the Plurality Opinion in United States v. Scheffer*, 69 TENN. L. REV. 539, 544 (2002).

93. *Id.*

94. *Scheffer*, 523 U.S. at 334–35 (Stevens, J., dissenting).

95. *Id.* at 334 (Stevens, J., dissenting) (citing *Barefoot v. Estelle*, 463 U.S. 880, 898–901 (1983).

96. *Id.* at 332 (Stevens, J., dissenting).

97. *See, e.g., Commonwealth v. Epps*, 53 N.E.3d 1247 (Mass. 2016) (containing numerous references to studies casting doubt on experts whose testimony often results in convictions in these cases).

98. *See, e.g.,* Emily Bazelon, *Shaken Baby Syndrome Faces New Questions in Court*, N.Y TIMES MAG., Feb. 2, 2011.

99. *See* Kathleen Stilling & Jerome Buting, *Motion Practice in a Child Sex Case*, THE CHAMPION, Aug. 2016 at 24, 28.

100. Edward J. Imwinkelried, *A Defense of the Right to Present Defense Expert Testimony: The Flaws in the Plurality Opinion in United States v. Scheffer*, 69 TENN. L. REV. 539, 557 (2002) (citing a 1996 Justice Department study of 28 cases in which defendants were convicted largely on the basis of mistaken eyewitness testimony but exonerated later by DNA expert testimony, and referencing "a large body of empirical research documenting a substantial incidence of error in 'factual' testimony by eyewitnesses.").

101. *See United States v. Henderson,* 409 F.3d at 1302 (citing *Daubert,* 509 U.S. at 595, as suggesting an "enhanced role" of Fed. R. Evid. 403 under the broadened admissibility regime announced in *Daubert*.).

102. *United States v. Kwong*, 69 F.3d 663, 668 (2d Cir. 1995). Interestingly, the Second Circuit simultaneously ruled a highly questionable eyewitness identification admissible. *Id.* at 665–66.

103. *See, e.g., United States v. Brown*, 441 F.3d 1330, 1362 (11th Cir. 2006) (rejecting an objection to extremely gruesome crime scene photographs. "In reviewing issues under Rule 403, we look at evidence in the light most favorable to its admission, maximizing its probative value and minimizing its undue prejudicial impact." (citation omitted).

104. *Supra* note 44 and accompanying text.

105. Rule 403 specifies exclusion only

when probative value of relevant evidence is "substantially outweighed" by certain "indicated risks." *See* Dale A. Nance, 34 SETON HALL L. REV. 191, 226 (2003–2004) ("Under [FRE] 403, the burden is on the objecting party to convince the trial judge that the testimony's probative value is outweighed by the indicated risks.").

106. *United States v. Posado*, 57 F.3d 428 (5th Cir. 1995).

107. Yigal Bander, *United States v. Posado: The Fifth Circuit Applies Daubert to Polygraph Evidence*, 57 LA. L. REV. 691 (1997).

108. *United States v. Posado*, 57 F.3d 428, 431 (5th Cir. 1995).

109. Dr. David Raskin, *supra* note 45, was consulted on this scenario in *Posado* just prior to publication. He wrote: "The two sets of tests are not independent because they are the same examinees, so one can use only one set of three tests in this analysis. If the polygraph has an error rate of 10 percent, then the probability that all three truthful results were wrong is (.10) x (.10) x (.10) = .001. Thus the likelihood that all passed their tests even though actually lying is approximately 1 in 1,000. Even if one assumes that polygraphs are only 80 percent accurate, the probability is still (.20) x (.20) x (.20) = .008 or 8 in 1,000." E-mail from Dr. David Raskin (Jun. 20, 2017, 13:29 EST) (on file with author).

110. *Posado*, 57 F.3d at 431.

111. *Id.* at 435.

112. *Id.*

113. Doc. 78, *United States v. Pablo NMI Ramirez, Irma Clemencia Hurtado, Miriam Henao Posada*, Case No. 4:93-cr-00252 (S.D. Tex.) (Nov. 17, 1995).

114. "An Opposing Party's Statement" is not hearsay, according to Fed. R. Evid. 801(d)(2).

115. Order issued Apr. 19, 2015, Doc. 161, in *Angulo-Mosquera*, *supra* note 2.

116. *Crumby*, 895 F. Supp. at 1363–65.

117. *Id.*

118. *Id.* at 1364.

119. *Id.* at 1363.

120. *See* Order Dismissing Indictment, Doc. 118, in *United States v. Crumby,* Case No. 2:94-cr-00122-RGS (D. Ariz. 1995).

121. The complications caused by this refusal to sever, prejudicial cross-examination of Mr. Angulo, and other issues are pending appeal in the Eleventh Circuit as of this writing. *See United States v. Jesus Angulo-Mosquera*, No. 16-10261 (11th Cir.).

122. Trial Transcript (Vol. VII, Oct. 22, 2015), Doc. 499, in *Angulo-Mosquera*, *supra* note 2.

123. *Angulo-Mosquera*, *supra* note 2.

124. As of this writing, this case is on appeal in the Eleventh Circuit (*United States v. Jesus Angulo-Mosquera*, Case No. 16-10261) based on challenges to the prosecution's cross-examination of Angulo, other non-harmless errors and (by co-defendants) based on the district court's failure to sever the co-defendants who did not have polygraph evidence to present. Oral argument is scheduled for September 2017.

125. *See, e.g., United States v. Resnick*, No. 14-3791 at 12–15 (7th Cir. May 4, 2016) (discussing adverse district court admissibility rulings on polygraphs in the Seventh and other circuits); in the Eleventh Circuit since *Piccinonna* in 1989, research has identified no reversal of a district court exclusion of a defense polygraph.

126. Quoted in *Lee v. Martinez*, 96 P.3d at 297.

127. As opposed to use of the court's gatekeeping role to ensure admission of only properly administered exams with relevant questions, *see Piccinonna*, 885 F.2d at 1537, much other routinely accepted scientific evidence, such as DNA, remains subject to exclusion if the court deems it unreliable or irrelevant for fact reasons. "Most courts" rather than "Courts" is used because New Mexico has well-established rules that routinely allow polygraph evidence. N.M. RULE EVID. § 11-707.

128. *See* Part II of Justice Stevens' dissent, *Scheffer*, 523 U.S. at 325–30 ("The Court barely acknowledges that a person accused of a crime has a constitutional right to present a defense." *Id.* at 325–26.) In this section, Justice Stevens argues forcefully that a ban or unreasonable exclusion of polygraph evidence clearly violates a defendant's constitutional right to present a defense.

129. Inscription on the front of the Supreme Court building in Washington, D.C. ■

About the Author

Christophir Kerr was an FBI agent for 26 years before becoming a criminal defense attorney in 2009. He has published an article on national security letters in *William & Mary Policy Review*, and he has published *RICO*, a book that tells the true story of an FBI agent who died in jail falsely charged in a murder conspiracy with James "Whitey" Bulger.

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