Polygraph

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SPECIAL ISSUE

United States of America, Petitioner

vs.

Edward G. Scheffer.

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UNITED STATES v. SCHEFFER:

THE UNITED STATES SUPREME COURT CONSIDERS ADMISSIBILITY OF POLYGRAPH EVIDENCE

By

Gordon L. Vaughan, Esq.

The United States Supreme Court will consider in its 1997 term the issue of whether a per se evidentiary rule excluding polygraph evidence infringes on an accused's right to present a defense. Not since the 74-year-old decision in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), has there been a case that has the potential to impact the extent of admissibility of polygraph evidence in criminal cases.

The case of *United States v. Scheffer*, No. 96-1133, comes to the Court from the United States Court of Appeals for the Armed Services. There, a general court-martial composed of officer members at March Air Force Base, California, convicted Airman Scheffer of writing bad checks, use of methamphetamine, and being absent without leave. Evidence at the court-martial demonstrated that Airman Scheffer was an informant for OSI. He reported to OSI that two civilians were dealing in significant quantities of drugs. Airman Scheffer was asked to and provided a voluntary urine sample and submitted to a polygraph examination. The opinion does not set forth details of the polygraph technique used. However, relevant questions were: (1) had he used drugs while in the Air Force; (2) had he ever lied regarding any drug information given to OSI; and (3) had he ever told anyone, other than his parents, that he was working for OSI. His answer was no to each of these questions. The examiner concluded that no deception was indicated.

Airman Scheffer's urinalysis came back positive, and, along with the other infractions, Airman Scheffer was charged and court-martialed for use of methamphetamine.

Airman Scheffer offered as a defense that he had not intentionally ingested methamphetamine. He stated that he had been at one of the suspected drug dealer's houses on the evening prior to the urinalysis screening and that he left around midnight to go back to the Air Force base. He testified that the next thing he remembered was waking up in his car in a remote location.

The prosecutor sought to impeach Airman Scheffer on the basis that he was a liar. In closing argument, the prosecutor stated:

> He lies. He is a liar. He lies at every opportunity he gets and he has no credibility. Don't believe him.

United States v. Scheffer, 44 MJ 442, 444 (1996).

The author is General Counsel of the APA and an Associate Editor of *Polygraph*.

During trial, Airman Scheffer's attorneys attempted to lay a foundation for admissibility of polygraph evidence. The court denied Airman Scheffer's attempt to lay such foundation, relying on Military Rule of Evidence 707, which provides:

> Notwithstanding any other provision of law, the results of a polygraph examination, the opinion of a polygraph examiner, or any reference to an offer to take, failure to take, or taking of a polygraph examination, shall not be admitted into evidence.

Military Rule of Evidence 707 was a presidential reaction to the Court of Military Appeals' prior determination in *United States v. Gipson*, 24 MJ 246 (CMA 1987), in which the court found that the science of polygraph had progressed sufficiently to require that the courts allow defendants an opportunity to lay a foundation for the admissibility of exculpatory polygraph evidence.

Airman Scheffer was convicted by the court-martial panel and that conviction was upheld by the court of criminal appeals. The Court of Appeals for the Armed Services reversed that decision, however, finding that Military Rule of Evidence 707 denied Airman Scheffer his Sixth Amendment right to call witnesses in his favor. The Court of Appeals for the Armed Services was sharply divided on the issue of whether Airman Scheffer's constitutional rights had been violated. The three-judge majority wrote:

> Polygraph examinations were relatively crude when *Frye* was decided. *See Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. at 585, 113 S.Ct. At 2793. The Eleventh Circuit has recognized that, "[s]ince the *Frye* decision, tremendous advances have been made in polygraph instrumentation and technique." *United States v. Piccinonna*, 885 F.2d at 1532; *see also United States v. Galbreth*, 908 F.Supp. 877 (D.N.M. 1995); *United States v. Crumby*, 895 F.Supp. 1354 (D.Ariz. 1995). The effect of Mil.R.Evid. 707 is to freeze the law regarding polygraph examinations without regard for scientific advances. We believe that the truth-seeking function is best served by keeping the door open to scientific advances. *See United States v. Youngberg*, 43 MJ 379 (1995)(holding DNA evidence admissible); *United States v. Nimmer*, 43 MJ 252, 260 (1995)(remanding for hearing on reliability of hair analysis evidence). With respect to appellant's case, we, like the Fifth Circuit, cannot determine "whether polygraph technique can be said to have made sufficient technological advance in the seventy years since *Frye* to constitute the type of 'scientific, technical, or other specialized knowledge' envisioned by Rule 702 and *Daubert*." *United States v. Posado*, 57 F.3d at 433. We will never know unless we give appellant an opportunity to lay the foundation.

44 MJ at 446.

The dissent argued, in part, that:

> Mil.R.Evid. 707 was "based on several policy grounds." The policy grounds set forth in the Drafters' Analysis are not exclusive. These grounds include the risk of being treated with "near infallibility"; "danger of confusion of the issues"; and a waste of time on collateral matters. Drafters' Analysis, Manual, *supra* (1995 ed.)At A22-48.

> An additional policy concern is the impact in terms of practical consequences. Unfortunately, the majority overlooks the practical consequences of its decision on a worldwide system of justice. Our Court sees the cases that are at the end of a long funnel. There are approximately 4,000 general courts-martial per year. Annual Report, 39 MJ CXLVII, CLIX, CLXXIV, CLXXVII (1992-93). However, across the services, there are approximately 100,000 criminal actions per year. Statistically more than 20 percent of these involve drug cases like the present case. The majority fails to recognize that a concomitant right of presenting polygraph evidence is the right to demand a polygraph examination during the investigative stage. This may well impose a practical impossibility on the services.

44 MJ at 451.

Included in this issue of *Polygraph* are the brief and reply brief of petitioner filed by the Solicitor General's Office, the brief of respondent filed by the United States Air Force Appellate Defense Division, and an amicus curiae brief filed by the American Polygraph Association in support of respondent. These briefs provide a summary of the case law and science which form the controversy in this case and largely the controversy in all courts considering the admissibility and reliability of polygraph evidence. Further, we have not included the tables of authorities of the briefs reproduced herein. Referenced authorities are, however, cited in full within the text of the briefs.

Because of space considerations, not included in this issue are amicus curiae briefs of the State of Connecticut and 28 States in support of petitioner; the Criminal Justice Legal Foundation in support of petitioner; United States Army Defense Appellate Division in support of respondent; United States Navy-Marine Corps Appellate Defense Division in support of respondent; the National Association of Criminal Defense Lawyers in support of respondent; and the Committee of Concerned Social Scientists in support of respondent.

In the Supreme Court of the United States

October Term, 1996

No. 96-1133

United States of America, Petitioner

v.

Edward G. Scheffer

On Writ of Certiorari
To the United States Court of Appeals
For the Armed Forces

Brief for the United States

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a-24a) is reported at 44 M.J. 442. The opinion of the Air Force Court of Criminal Appeals (Pet. App. 25a-53a) is reported at 41 M.J. 683.

The judgment of the United States Court of Appeals for the Armed Forces was entered on September 18, 1996. On December 10, 1996, Chief Justice Rehnquist extended the time within which to file a petition for a writ of certiorari to and including January 16, 1997. The petition was filed on that date and was granted on May 19, 1997. The jurisdiction of this Court rests on 28 U.S.C. 1259(3).

RULE AND CONSTITUTIONAL PROVISIONS INVOLVED

Military Rule of Evidence 707 provides:

(a) Notwithstanding any other provision of law, the results of a polygraph examination, the opinion of a polygraph examiner, or any reference to an offer to take, failure to take, or taking of a polygraph examination, shall not be admitted into evidence.

(B) Nothing in this section is intended to exclude from evidence statements made during a polygraph examination which are otherwise admissible.

The Fifth and Sixth Amendments to the United States Constitution are *reprinted* at Pet. App. 77a-78a.

STATEMENT

Following trial by a general court-martial, respondent was convicted of uttering 17 insufficient-funds checks, using methamphetamine, failing to go to his appointed place of duty, and wrongfully absenting himself from the base for 13 days, in violation of Articles 123a, 112a, and 86 of the Uniform Code of Military Justice (UCMJ), 10 U.S.C. 923a, 912a, and 886. He was sentenced to 30 months' confinement, to forfeiture of all pay and allowances, and to a bad conduct discharge. The Air Force Court of Criminal Appeals affirmed, with

the proviso that respondent should receive credit for one day's forfeitures. Pet. App. 25a-53a. The Court of Appeals for the Armed Forces reversed and remanded. *Id.* At 1a-24a.

1. a. This case involves the constitutional validity of a rule excluding from court-martial proceedings in the armed forces any evidence of a polygraph examination. A polygraph examination is intended to produce an assessment of credibility; it is based on an examiner's subjective interpretation of physiological responses that are controlled by the subject's autonomous nervous system. The theory behind polygraph testing is that deception causes physiological reactions that are involuntary and that such reactions may be measured and interpreted.

While individual tests vary, polygraph examinations generally follow a common format. After a preliminary interview with the subject, the examiner asks a number of questions while measuring the subject's relative blood pressure (obtained from an inflated cuff on the upper arm) and other indications of blood flow, his "galvanic skin response" (*e.g.*, palmar sweating), and his respiration (obtained from sensors placed on the subject's chest or abdomen). The polygraph instrument records physiological responses on a chart, and the examiner manually marks when a response is uttered. The questions asked in most tests ordinarily fall into three broad categories: direct questions concerning the matter under investigation, irrelevant or neutral questions, and more general (so-called "control") questions concerning whether the subject has possibly engaged in other wrongful acts similar to the one under inquiry. The examiner poses the control questions in such a way as to elicit anxiety and a possibly deceptive response, in order to see a benchmark of the subject's physiological reactions when exhibiting concern about lying. There are no standardized questions in a polygraph examination; the examiner devises the questions for the individual subject and may refine them after the preliminary interview. Each question is worded to elicit a "yes" or "no" answer. The test is typically limited to ten questions, because "[t]he restriction of blood flow in the arm produces ischemic pain after several minutes." W. Iacono & D. Lykken, "The Scientific Status of Research on Polygraph Techniques: The Case Against Polygraph Tests," in 1 *Modern Scientific Evidence* § 14-3.1.1, at 583 (d. Faigman *et al.* eds., 1997).

The examiner forms an opinion with respect to the subject's truthfulness by comparing the subject's physiological reactions to each set of questions. See generally 1 P. Giannelli & E. Imwinkelried, *Scientific Evidence* § 8-2(B), at 219-222 (2d ed. 1993); C. Honts & B. Quick, *The Polygraph in 1995: Progress in Science and the Law*, 71 N.D.L. Rev. 987, 989-993 (1995). If the responses do not elicit a significant enough variation in response, the examiner can adjust the polygraph instrument so that the recordings during the examination are more pronounced. The subject is usually required to be measured answering each set of ten questions (with the questions asked in varying orders) three different times. The polygrapher may base his inference of deception by comparing physiological responses (as recorded in peaks and valleys on the chart) to relevant and control questions. See generally Giannelli & Imwinkelried, *supra*, at 218.

B. In *United States v. Gipson*, 24 M.J. 246 (1987), the Court of Military Appeals (now the Court of Appeals for the Armed Forces) concluded that polygraph techniques had reached a sufficient degree of reliability that evidence of a polygraph examination should not be routinely excluded from court-martial proceedings under Military Rules of Evidence 702[1] The court noted that "[i]f anything is clear, it is that the

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1 Military Rule of Evidence 702, like its counterpart in the Federal Rules of Evidence, provides that "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."

battle over polygraph reliability will continue to rage," but it concluded that "until the balance of opinion shifts decisively in one direction or the other, the latest developments *** should be marshaled at the trial level." 24 M.J. at 253. Accordingly, the court held that a serviceman who testifies at his court-martial trial is entitled to lay a foundation showing the scientific basis for polygraph results consistent with his exculpatory testimony. *Id.* At 252-254.

On June 27, 1991, "[b]y the authority vested in [him] as President by the Constitution of the United States and by Chapter 47 of Title 10 of the United States Code [*i.e.*, the UCMJ]," the President responded to *Gipson* by promulgating Military Rule of Evidence 707.[2] See Exec. Order No. 12,767, 3 C.F.R. 334, 339-340 (1991 comp.). The drafters' commentary that accompanied the rule explained its adoption by reference to several policies:

> There is a real danger that court members will be misled by polygraph evidence that "is likely to be shrouded with an aura of near-infallibility." *United States v. Alexander*, 526 F.2d 161, 168-169 (8th Cir. 1975). *** There is also a danger of confusion of the issues, especially when conflicting polygraph evidence diverts the [court-martial] members' attention from a determination of guilt or innocence to a judgment of the validity and limitations of the polygraphs. *** Polygraph evidence also can result in a substantial waste of time when the collateral issues regarding the reliability of the particular test and qualifications of the specific polygraph examiner must be litigated in every case. Polygraph evidence places a burden on the administration of justice that outweighs the probative value of the evidence. The reliability of polygraph evidence has not been sufficiently established and its use at trial impinges upon the integrity of the judicial system.

Pet. App. 82a-83a. Those considerations, the drafters stated, warrant "a bright-line rule that polygraph evidence is not admissible by any party to a court-martial." *Id.* At 83a.

2. On March 27, 1992, respondent, an airman stationed at March Air Force Base, California, opened a checking account with the Security Pacific Bank with a $277 deposit. He made no arrangements for his pay to be deposited into the account, and he withdrew $200 on the same day the account was opened. On March 31, 1992, respondent telephoned the bank and stated that he had lost his ATM card and the temporary checks that the bank had issued for the account. He was apparently told that the account would be closed for security reasons. After the telephone call, between April 1 and May 3, respondent wrote 17 checks on the account, totaling approximately $3,300 in checks drawn on insufficient funds. See Pet. App. 25a; 3 Trial Rec. 237-245, 249.

In late March 1992, as he was beginning the Security Pacific scheme, respondent volunteered to assist the Air Force Office of Special Investigations (OSI) with drug investigations, and informed OSI that he had information on two civilians who were dealing in significant quantities of drugs. Pet. App. 2a, 26a. On April 7, 1992, one of the OSI agents supervising respondent requested that respondent submit to a urine test. Respondent agreed, but he stated that he could not provide a urine specimen then, because he urinated only once a day. He submitted to a urinalysis on the following day. On May 14, 1992, OSI agents learned that

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2 Article 36(a) of the UCMJ, 10 U.S.C. 836(a), provides that "[p]retrial, trial, and post-trial procedures, including modules of proof *** may be prescribed by the President by regulations which shall, so far as he considers practicable, apply the principle of law and the rules of evidence generally recognized in the trial of criminal cases in the United States district courts."

respondent's urine had tested positive for methamphetamine. *Id.* At 26a-27a.

On April 10, 1992, two days after providing a urine sample, respondent agreed to take a polygraph administered by an OSI examiner. According to the examiner, respondent's polygraph charts "indicated no deception" when respondent denied that he had used drugs since joining the Air Force. Pet. App. 2a-3a, 26a-27a. Later that month, on April 30, 1992, respondent unaccountably failed to appear for work and could not be found on the base. Respondent was not heard from again until May 13, 1992, when an Iowa State Patrolman telephoned the base with news that respondent had been arrested in that State following a routine traffic stop; upon learning that respondent was AWOL, the patrolman held respondent for return to the base. See 3 Trial Rec. 258-259, 265-267.

At his trial, respondent advised the court that he intended to testify in his defense, and that he wished to rely on "the results of the exculpatory polygraph" to corroborate "an innocent ingestion defense" to the drug charges. 2 Trial Rec. 42, 43-44. Respondent argued that Rule 707 "in unconstitutional if it prohibits an accused from introducing relevant and helpful exculpatory evidence," and he argued that he should be permitted to lay a foundation "to show that in this particular case *** the polygraph results are relevant and helpful." *Id.* At 44.

The military judge noted that "[f]or evidence to be helpful, the testimony of the polygrapher would have to be in an area in which the factfinder himself needs help in making a decision." 2 Trial Rec. 46. In his view,

> The President may, through the Rules of Evidence, determine that credibility is not an area in which a fact finder needs help, and the polygraph is not a process that has sufficient scientific acceptability to be relevant.

Ibid. The military judge also noted that "[t]he fact finder might give *** too much weight" to polygraph testimony, and that arguments about such testimony could take "an inordinate amount of time and expense. *** Given those concerns, I don't believe that the constitution prohibits the President from appropriately ruling the polygraph evidence will not be admitted in a court-martial." *Ibid.* Respondent later testified that he did not recall "knowingly" ingesting methamphetamine. He was convicted. Pet. App. 3a-4a.

3. The Air Force Court of Criminal Appeals, sitting en banc, rejected respondent's contention that the exclusion of the polygraph evidence deprived him of a fair trial. Pet. App. 25a-53a. After reviewing this Court's decisions in *Washington v. Texas*, 388 U.S. 14 (1967), *Chambers v. Mississippi*, 410 U.S. 284 (1973), and *Rock v. Arkansas*, 483 U.S. 44 (1987), see Pet. App. 32a-35a, the court concluded that the Constitution forbids evidentiary rules that "*arbitrarily* limit the accused's ability to present reliable evidence," "*arbitrarily* limit admission [of evidence] by the defense to a greater degree than by the prosecution," or "*arbitrarily* infringe on the right of the accused to testify on his own behalf." *Id.* At 40a.

The court noted that Rule 707 is "equally applicable to both the prosecution and the defense" and does "not infringe on the right of the accused to testify on his own behalf." Pet. App. 43a. It also observed that Rule 707 could not be viewed as an "arbitrary" limitation on reliable evidence, because "[t]he President's decision to prohibit polygraph evidence is not based on whim or impulse, but rather on sound reasoning." Pet. App. 40a. The court explained that there remain "valid concerns" about polygraph examinations and that:

> The President is rightly concerned that courts-martial could degenerate into a battle of polygraph examinations and experts that would impose a burden on the administration of military justice that would outweigh the value of the evidence.

Id. at 41a. The court concluded "[w]hile it might be arbitrary for the President to promulgate a rule" barring evidence that is widely accepted by courts as reliable, "such as fingerprint evidence," (*id.* At 43a), the President acted within his authority in barring polygraph evidence, which routinely is ruled inadmissible by the civilian courts (*id.* At 42a-43a).

Judge Pearson, joined by Judge Schreier, dissented in part. Pet. App. 49a-53a. He believed that properly conducted polygraph examinations may provide "vital" evidence in a case in which the defendant's credibility "becomes the whole ball game." *Id.* At 51a.

4. By a three to two vote, the United States Court of Appeals for the Armed Forces reversed. The court agreed with respondent's claim that Rule 707 "violates his Sixth Amendment right to present a defense because it compelled the military judge to exclude relevant, material, and favorable evidence offered by" respondent. Pet. App. 4a. Assuming that the President properly promulgated Rule 707 pursuant to the UCMJ, see Pet. App. 7a, the court concluded that, under *Rock v. Arkansas, supra*, the President's "legitimate interest in barring unreliable evidence does not extent to *per se* exclusions that may be reliable in an individual case." Pet. App. 8a (quoting *Rock*, 483 U.S. at 61). The court acknowledged that *Rock* "concerned exclusion of a defendant's testimony and this case concerns exclusion of evidence supporting the truthfulness of a defendant's testimony," but it could "perceive no significant constitutional difference between the two." Pet. App. 9a.

Finally, the court noted that in *Montana v. Egelhoff*, 116 S.Ct. 2013 (1996), this Court upheld a state "statute excluding evidence of voluntary intoxication when a defendant's state of mind is at issue." Pet. App. 13a. The court observed, however, that *Egelhoff* was a "fragmented" decision that is best read as "founded on the power of the state to define crimes and defenses." *Id.* At 14a. The court also found *Egelhoff* inapposite because Rule 707 does not address a fact to be proved, but instead "bars otherwise admissible and relevant evidence based on the mode of proof by categorically excluding polygraph evidence. While the plurality in *Egelhoff* questions whether the distinction between the fact to be proved and the method of proving it makes a difference, 116 S.Ct. At 2017 n.1, only four justices joined in that observation." Pet.App. 15a.[3]

Judges Sullivan and Crawford filed separate dissents. Pet. App. 16a-24a. Judge Sullivan's dissent was based on his concurring opinion in *United States v. Williams*, 43 M.J. 348 (C.M.A. 1995), cert. denied, 116 S.Ct. 925 (1996), a case in which the court of appeals had declined to address the constitutional validity of Rule 707, because the accused did not testify. Pet. App. 67a-68a. Writing separately in *Williams*, Judge Sullivan concluded that polygraph evidence is inadmissible under Military Rule of Evidence 608, which restricts what evidence may be offered in support of a witness's "character for *** truthfulness." *Id.* At 75a. Judge Sullivan believed, moreover, that such evidence "infringes on the jury's role in determining credibility," because "[o]ur adversary system is built on the premise that the jury reviews the testimony and determines which version of events it believes." *Id.* At 75a-76a (internal quotation marks omitted). In his view, Rule 707 "properly" addresses those concerns. *Id.* At 76a.

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The court also noted that in *Wood v. Bartholomew*, 116 S.Ct. 7 (1995) (per curiam), this Court summarily reversed the Ninth Circuit's determination that a state prosecutor violated his duties under *Brady v. Maryland*, 373 U.S. 83 (1963), by failing to disclose the results of certain polygraph examinations. Pet. App. 12a-13a. The court observed that *Bartholomew* involved "prosecution witnesses, not the accused," and it added that while this Court "noted that polygraph evidence was inadmissible under [state] law, *** [t]he constitutionality of the state law was not before the Court and *** was not addressed." *Id.* At 12a-13a.

Judge Crawford argued that a defendant's right to present relevant evidence "is 'not *** absolute'," and must yield to policy considerations such as those that supported the President's decision to adopt Rule 707. Pet. App. 17a, 21a. She also took issue with the court's characterization of *Egelhoff*, noting that the four-Justice plurality and the four dissenting Justices agreed "that relevant, reliable evidence may be excluded if there is a valid policy reason for doing so." *Id.* At 21a. Finally, Judge Crawford argued that the court's ruling would have a seriously adverse impact on the military's "worldwide system of justice." *Ibid.*

SUMMARY OF ARGUMENT

I. Military Rule of Evidence 707, which establishes a per se bar on the admissibility of polygraph evidence in courts-martial, is valid under the Sixth Amendment. A polygraph is an instrument that records physiological responses to questions and produces data that an examiner interprets to form a subjective opinion about the subject's credibility at the time. It is based on the theory that deception results in essentially uncontrollable responses by the subject's autonomous nervous system, and that those responses can be interpreted as evidence of honesty or deception.

A criminal defendant does not have an unqualified right under the Sixth Amendment to present any evidence that is arguably relevant to a fact at issue. Rather, trial proceedings are government by rules of evidence that are themselves designed to produce a reliable result and to further valid policy interested. Many evidentiary rules restrict or preclude admission of relevant and probative evidence, and such rules are constitutional so long as they are not "arbitrary or disproportionate to the purposes they are designed to serve." *Rock v. Arkansas*, 483 U.S. 44, 56 (1987).

A per se rule prohibiting admission of polygraph evidence serves legitimate interests. First, for decades scientists have engaged in an arguably unresolvable debate over whether polygraph examinations are reliable. Significant doubts persist about whether polygraphs are verifiable and replicable. That scientific disagreement makes it particularly appropriate for courts to defer to the appropriate rule-making authority's determination to bar polygraph evidence. The rule is further supported by the intrusion of polygraph evidence on functions traditionally performed by the trier of fact: assessing credibility and deciding the ultimate issue of guilt or innocence based on all of the evidence adduced at trial. A per se rule against polygraph evidence also avoids unnecessary collateral litigation over the evidentiary value of a polygraph result in any given situation. Finally, the existence of widespread judicial support for exclusion of such evidence further justifies the President's reasonable judgment in promulgating the per se prohibition on admission of polygraph evidence.

II. Not only does the decision by the court below conflict with general principles of Sixth Amendment jurisprudence, it is particularly unwarranted in the military context, where deference to the political branches of government is at its apex. It is well settled that the constitutional requirements for trials in civilian life do not necessarily apply with equal force to courts-martial and that procedural restrictions may be appropriate in the military context in view of the specialized nature of military life and the military's primary function to defend the Nation. Thus, a service member challenging the rule has an "extraordinarily weighty" burden in "overcom[ing] the balance struck by Congress." *Weiss v. United States*, 510 U.S. 163, 177-178 (1994). In light of the substantial reasons for prohibiting admissibility of polygraph evidence, respondent cannot meet that burden.

ARGUMENT

I. THE PER SE EXCLUSION OF POLYGRAPH EVIDENCE IN A CRIMINAL CASE IS VALID UNDER THE SIXTH AMENDMENT

A. Restrictions On The Admissibility of Evidence Are Constitutional If They Are Reasonable And Serve Legitimate Interests

Although the Constitution guarantees a fair trial through the Due Process Clause, the Sixth Amendment defines "the basic elements of a fair trial," including the right to confrontation, the right to compel testimony, and the right to counsel. *Strickland v. Washington*, 466 U.S. 668, 684-685 (1984). Those Sixth Amendment rights "guarantee[] criminal defendant's 'a meaningful opportunity to present a complete defense.'" *Crane v. Kentucky*, 476 U.S. 683, 690 (1986)(quoting *California v. Trombetta*, 467 U.S. 479, 485 (1984)), so that the trier of fact "may decide where the truth lies," *Washington v. Texas*, 388 U.S. 14, 19 (1967). As this Court has observed, the right to present a complete defense would be an "empty one" if the government were permitted to exclude competent, reliable evidence that is central to the defendant's claim of innocence, for the exclusion of such exculpatory evidence "deprives a defendant of the basic right to have the prosecutor's case encounter and 'survive the crucible of meaningful adversarial testing.'" *Crane*, 476 U.S. at 690-691 (quoting *United States v. Cronic*, 466 U.S. 648, 656 (1984)).

Nevertheless, a defendant's right to present relevant evidence in his defense is not absolute. The Court has consistently recognized that "[n]umerous state procedural and evidentiary rules control the presentation of evidence." *Rock v. Arkansas*, 483 U.S. 44, 55 n. 11 (1987); *Washington v. Texas*, 388 U.S. at 23 n. 21. Under those rules, a defendant "does not have an unfettered right to offer testimony that is incompetent, privileged, or otherwise inadmissible under standard rules of evidence." *Taylor v. Illinois*, 484 U.S. 400, 410 (1988). Testimony may be excluded "through the application of evidentiary rules that themselves serve the interests of fairness and reliability--even if the defendant would prefer to see the evidence admitted." *Crane*, 476 U.S. at 690; see *Michigan v. Lucas*, 500 U.S. 145, 151 (1991)(upholding exclusion of defense evidence for failure to comply with notice requirement).

The principle that a defendant may not require a court to admit all relevant, exculpatory evidence runs throughout the standard rules of evidence. For example, the Federal Rules of Evidence authorize a court to exclude relevant evidence whose probative value is substantially outweighed by the danger of unfair prejudice (Fed.R.Evid. 403); evidence of other crimes or wrongs to prove character in order to show action in conformity therewith (Fed.R.Evid. 404(b); evidence covered by a rule of privilege (Fed.R.Evid. 501); expert testimony that is insufficiently reliable to amount to "scientific knowledge" that would "assist the trier of fact" (Fed.R.Evid. 702); expert testimony on an ultimate issue of a criminal defendant's mental state constituting an element of the crime (Fed.R.Evid. 704); and hearsay evidence unless covered by an exception (Fed.R.Evid. 802). Although some of those rules permit case-by-case adjudication of the admissibility of a particular item of evidence, others operate in a categorical fashion to establish per se rules of exclusion.[4]

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[4] For example, the determination whether evidence should be excluded under Rule 403 is typically made on an individualized basis. In contrast, Rule 404(b) is categorical in excluding other act evidence to prove character in order to show action in conformity therewith. See also *Jaffe v. Redmond*, 116 S.Ct. 1923, 1932 (1996)(rejecting case-by-case balancing test for psychotherapist-patient privilege under Rule 501).

In reviewing the constitutionality of an evidentiary rule of exclusion, this Court looks to whether the rule is "arbitrary or disproportionate to the purposes [it is] designed to serve"--that is, "whether the interests served by [the] rule justify [its] limitation" on the admission of evidence. *Rock*, 483 U.S. at 56; *Lucas*, 500 U.S. at 151 ("Restrictions on a criminal defendant's evidence 'may not be arbitrary or disproportionate to the purposes they are designed to serve.'") (quoting *Rock,* 483 U.S. at 56). As the plurality noted in *Montana v. Egelhoff*, 116 S.Ct. 2013 (1996), in which the Court upheld Montana's prohibition of evidence of voluntary intoxication on the issue of whether the defendant possessed a requisite mental state, "the introduction of relevant evidence can be limited by the State for a 'valid' reason." *Id.* At 2022 (plurality opinion of Scalia, J.); see *id.* At 2028-2029 (O'Connor, J., dissenting) (arguing that Montana improperly barred intoxication evidence for the sole purpose of increasing convictions, whereas "[t]he *purpose* of the familiar evidentiary rule is *** to vindicate some other goal or value--*e.g.*, to ensure the reliability and competency of evidence"); *id.* At 2032 (Souter, J., dissenting) ("A State may typically exclude even relevant and exculpatory evidence if it presents a valid justification for doing so."). Rule 707's per se exclusion of polygraph results and the opinion of the polygraph examiner is a proportionate means to serve valid interests, and thus does not abridge the Sixth Amendment.

B. A Per Se Rule Excluding Polygraph Results Serves Legitimate Interests In Promoting Fairness and Reliable Fact-Finding

As the Commander-in-Chief, the President has the authority to promulgate rules of evidence applicable in courts-martial. U.S. Const. Art. II, § 2; 10 U.S. C. 836. Rule 707 evenhandedly bars polygraph evidence whether offered by the prosecution or the defense. The drafters' commentary that accompanied Rule 707 enumerated several factors underlying adoption of the Rule: (1) the scientific controversy over the reliability of polygraph examinations; (2) the danger that the opinion of the polygraph examiner will intrude on the jury's function of assessing credibility; (3) the danger that jurors will accord excessive weight to the expert's testimony; (4) the danger that the focus of the trial will shift from the guilt or innocence of the accused to the validity of the polygraph examination; and (5) the time-consuming collateral litigation to which the admissibility of polygraph evidence would give rise, with the attendant burden on the administration of military justice. See Pet. App. 82a-83a. In light of these valid, nonarbitrary factors, the military's rule excluding evidence of the results of polygraph examinations from courts-martial does not violate the Sixth Amendment.

1. *Legitimate doubt exists in the scientific community over the reliability of polygraphs*

An important function of evidentiary rules is the exclusion of certain categories of evidence that are deemed insufficiently reliable, as demonstrated by the hearsay rule, Fed.R.Evid. 802. See *Egelhoff*, 116 S.Ct. At 2017. One need not take sides in the debate over polygraph testing to recognize that the reliability of such testing is widely questioned by scientists, Congress, and the Courts.[5]

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In part for that reason, in federal criminal trials, Department of Justice policy "opposes all attempts by defense counsel to admit polygraph evidence or to have an examiner appointed by the court to conduct a polygraph test *** [and admonishes] [g]overnment attorneys *** from seeking the admission of favorable examinations which may have been conducted during the investigatory stage" of the case. III(a) U.S. Department of Justice, United States Attorney's Manual § 9-13.310 (1988) (Department Policy Toward Polygraph Use).

a. For more than a century, scientists have conducted numerous studies in attempts to develop verifiable and replicable proof that a subject's lie produces measurable physiological responses. See generally J. Matte, *Forensic Psychophysiology Using The Polygraph* 11-101 (1996)(tracing history of lie detection efforts); S. Abrams, *The Complete Polygraph Handbook* 2-8 (1989) (same). Some studies attempt to create laboratory conditions that mimic experiences of real subjects; others compare information obtained in real cases to verify findings of deceptiveness. The Office of Technology Assessment (OTA) evaluated all of the available studies in a comprehensive monograph published in 1983. See U.S. Congress, Office of Technology Assessment, *Scientific Validity of Polygraph Testing: A Research Review and Evaluation--A Technical Memorandum* (OTA-TM-H-15, Nov. 1983) (OTA Study). The OTA Study concluded that "no overall measure of single, simple judgment of polygraph testing validity can be established based on available scientific evidence":

> There are two major reasons why an overall measure of validity is not possible. First, the polygraph test is, in reality, a very complex process that is much more than the instrument. Although the instrument is essentially the same for all applications, the types of individuals tested, training of the examiner, purpose of the test, and types of questions asked, among other factors, can differ substantially. A polygraph test requires that the examiner infer deception or truthfulness based on a comparison of the person's physiological responses to various questions. For example, there are differences between the testing procedures used in criminal investigations and those used in personnel security screening. Second, the research on polygraph validity varies widely in terms of not only results, but also in the quality of research design and methodology. Thus, conclusions about scientific validity can be made only in the context of specific applications and even then must be tempered by the limitations of available research evidence.

Id. At 4. In the years since publication of the OTA study, numerous additional studies of polygraphs have been made. The validity of such studies has sparked considerable debate.

The editors of the most recent treatise on scientific evidence observe that "[s]cientific opinion about the validity of polygraph techniques is extremely polarized," and according present the arguments pro and con without attempting to resolve definitively whether polygraph testing provides a valid means of ascertaining the credibility of a subject in the various contexts in which such examinations are administered. 1 D. Faigman *et al.*, *Modern Scientific Evidence* § 14-1.4, at 565 n.* (1997).[6] See also 1 P. Giannelli & E. Imwinkelried, *Scientific Evidence* § 8-2(C), at 225 (2d ed. 1993) ("The validity of polygraph testing in criminal investigations remains controversial."); see also *id.* At 227 ("A number of authorities have questioned the validity of polygraph testing."). Even strong proponents of polygraph testing only venture to say that "the polygraph is a useful diagnostic tool for assessing truthfulness," while acknowledging that many applications of polygraph tests are "undesirable" and "objectionable." D. Raskin *et al.*, "The Scientific Status of Research on Polygraph Techniques: The Case for Polygraph Tests," in 1 Faigman, *supra*, §§ 14-2.2.3 to 13-2.3, at 581-582. Two critics of the accuracy of polygraphs, however, have maintained that the validity of the control-question testing

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Compare D. Raskin *et al.*, "The Scientific Status of Research on Polygraph Techniques: The Case for Polygraph Tests," § 14-2.0, at 565-582, in 1 *Modern Scientific Evidence* (D. Faigman *et al.* eds., 1997) with W. Iacono and D. Lykken, "the Scientific Status of Research on Polygraph Techniques: The Case Against Polygraph Tests," in *ibid.*, § 14-3.0, at 582-618.

method of polygraph examinations--the approach preferred by polygraph proponents--"is little better than could be obtained by the toss of a coin." W. Iacono & D. Lykken, "The Scientific Status of Research on Polygraph Techniques: The Case Against Polygraph Tests," in 1 Faigman, *supra* § 14-5.3, at 629. That disagreement confirms the continuing validity of the view of the OTA, whose 1983 report concluded that "[o]verall, the cumulative research evidence suggests that when used in criminal investigations, the polygraph test detects deception better than chance, but with error rates that could be considered significant." OTA Study, *supra*, at 5.[7]

b. Congress has reached similar conclusions about the accuracy of polygraphs as a means of detecting deceit. After extensive hearings in 1965, the Committee on Governmental Operations of the House of Representatives concluded:

> There is no "lie detector." The polygraph machine is not a "lie detector", nor does the operator who interprets the graphs detect "lies." The machine records physical responses which may or may not be connected with an emotional reaction--and that reaction may or may not be related to guilt or innocence. Many, many physical and psychological factors make it possible for an individual to "beat" the polygraph without detection by the machine or its operator.

H.R. Rep. No. 198, 89th Cong., 1st Sess. 13 (1965). Following further hearings and study, the same conclusions were reached in 1976. *The Use of Polygraphs and Similar Devices by Federal Agencies: Hearings on H.R. 795 Before the House Comm. On Government Operations*, 94th Cong., 2d Sess. (1976). And in 1988, as a result of continuing doubts about the usefulness and accuracy of polygraphs as a means of detecting deceit, Congress restricted the use of polygraphs in employment decisions. See Employee Polygraph Protection Act of 1988, 29 U.S.C. 2001 *et seq.*

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[7] There is no doubt that the polygraph can accurately measure certain physiological responses to accusatory questioning and that a correlation appears to exist between a fear of detection and a subject's physiological response. Critics argue, however, that these responses have not been shown to be different from physiological responses caused by other emotions:

> [T]here is no reason to believe that lying produces distinctive physiological changes that characterize it and only it. ... [T]here is no set of responses--physiological or otherwise--that humans emit only when lying or that they produce only when telling the truth. ... No doubt when we tell a lie many of us experience an inner turmoil, but we experience a similar turmoil when we are falsely accused of a crime, when we are anxious about having to defend ourselves against accusations, when we are questioned about sensitive topics--and, for that matter, when we are elated or otherwise emotionally stirred.

Giannelli & Imwinkelried, *supra*, at 216-217 (quoting B. Kleinmuntz & J. Szucko, *On the Fallibility of Lie Detection*, 17 Law & Soc'y Rev. 85, 87 (1982). See also D. Lykken, *The Lie Detector and the Law*, 8 Crim. Def. 18, 21 (1981) ("But people do not all react in the same way when they are lying and, more important, any reaction that you might display when answering deceptively you might also display another time, when you are being truthful"); U.S. Department of Defense, *The Accuracy and Utility of Polygraph Testing* 3 (1984) (noting limitations in research conducted on polygraphs but stating that "the research produces results significantly above chance").

c. Courts have noted the highly subjective nature of polygraph testing. Because a polygraph examination tests a person's physiological reactions to questions posed at a particular time and place, the test is not replicable. Influences as varied as the emotional state of the subject on the day of the test, the room in which the polygraph is administered, the amount of sleep the subject has had the night before, and the number of cups of coffee the subject has consumed before the test may alter the physiological responses to questions. Thus, a person may produce a different polygraph chart in response to the same questions asked on a different day in a different location.[8]

Moreover, the polygrapher conducting the examination injects a high degree of subjectivity into the examination. Although both the American Polygraph Association and the American Association of Police Polygraphists publish standards for the use of polygraphs, neither organization "has the authority to compel members to comply with them," and "an estimated 2,000 other polygraph examiners *** do not belong to either society." C. Murphy & J. Murphy, "Polygraph Admissibility," in 10 *National Center for Prosecution of Child Abuse Update* 1 (1997). Accordingly, "[d]ue to the subjective nature of the polygraph (it is not uncommon for polygraphers to reach different conclusions after reviewing the same test results), the potential for abuse by the polygrapher being biased either for or against the suspect ('assisted' polygraph examinations), and the various levels of expertise of the polygraphers, the need for enforceable standards is of paramount importance." *Ibid.* (footnotes omitted). See also *People v. Monigan*, 390 N.E.2d 562, 569 (Ill.App.Ct. 1979) (subjectivity of interpreting test results); *State v. Frazier*, 252 S.E.2d 39, 48-49 (W.Va. 1979) (same); *United States v.Alexander*, 526 F.2d 161, 164 n.6 (8th Cir. 1975) (general lack of training of polygraphers and the absence of adequate professional standards and qualifications); *People v. Alexander*, 637 P.2d 354, 360 (Colo. 1981) (en banc) (same).[9]

There is also evidence that a highly motivated subject (such as a defendant) may employ

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Courts critical of polygraph testing have also pointed to the multiple variables that may influence the results of a polygraph test, including the physical and mental condition of the subject, the extent of the subject's nervousness, the subject's attitude toward the examiner, the subject's use of alcohol or drugs, distractions in the examination setting, the extent of a guilty subject's subjective belief in his own innocence, the competence and integrity of the examiner, the phrasing of the examiner's questions, and the appropriateness of the control questions. See, *e.g.*, *Brown v. Darcy*, 783 F.2d 1389, 1396 (9th Cir. 1986); *United States v. Alexander*, 526 F.2d 161, 165 (8th Cir. 1975); *People v. Monigan*, 390 N.E.2d 562, 569 (Ill.App.Ct. 1979).

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As Giannelli and Imwinkelried note:

> Even the proponents of the polygraph technique agree that the examiner, and not the machine, is the crucial factor in arriving at reliable results. The examiner's expertise is critical in (1) determining the suitability of the subject of testing, (2) formulating proper test questions, (3) establishing the necessary rapport with the subject, (4) detecting attempts to mask or create chart reactions, or other countermeasures, (5) stimulating the subject to react, and (6) interpreting the charts.

Scientific Evidence, supra, § 8-2(A), at 218.

countermeasures to obscure an accurate reading of physiological responses.[10] Such countermeasures include hypnosis and biofeedback, ingestion of drugs, and subtle, surreptitious muscular movements during the examination. And although polygraphers can expect a subject to employ countermeasures, "[t]here is no good evidence as to how well these countermeasures work under real life conditions and no evidence at all concerning how frequently such countermeasures are successfully employed in real life by sophisticated subjects." Iacono & Lykken, *supra*, § 14-3.2.5, at 595-596.

A scientific technique whose reliability and helpfulness are so widely questioned by scientists, legislators, and courts may surely be made the subject of a categorical exclusionary rule. As this Court recently noted, "when a legislature 'undertakes to act in areas fraught with medical and scientific uncertainties, legislative options must be especially broad and courts should be cautious not to rewrite legislation.'" *Kansas v. Hendricks*, Nos. 95-1649 & 95-9075 (June 23, 1997), slip op. 12 n.3 (quoting *Jones v. United States*, 463 U.S. 354, 370 (1983), *id.* At 3 (Breyer, J., dissenting) ("The Constitution permits a State to follow one reasonable professional view, while rejecting another.").

2. *The admission of polygraph evidence intrudes on functions performed by the trier of fact*

Even assuming that polygraph testing had a high degree of reliability when properly administered, the President may reasonably be concerned about the potential encroachment of polygraph evidence on the proper functioning of the trier of fact. First, juries may be unduly swayed by the polygraph expert's opinion. As the Eighth Circuit explained in *Alexander*, 526 F.2d at 168:

> When polygraph evidence is offered in evidence at trial, it is likely to be shrouded with an aura of near infallibility, akin to the ancient oracle of Delphi. During the course of laying the evidentiary foundation at trial, the polygraphist will present his own assessment of the test's reliability which will generally be well in excess of 90 percent. He will also present physical evidence, in the form of the polygram, to enable him to advert the jury's attention to various recorded physical responses which tend to support his conclusion. Based upon the presentment of this particular form of scientific evidence, present-day jurors, despite their sophistication and increased educational levels and intellectual capacities, are still likely to give significant, if not conclusive, weight to a polygraphist's opinion as to whether the defendant is being truthful or deceitful in his response to a question bearing on a dispositive issue in a criminal case.

See also *Barefoot v. Estelle*, 463 U.S. 880, 926 (1983) (Blackmun, J., dissenting) (quoting P. Giannelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States, A Half-Century Later*, 80 Colum. L. Rev. 1197, 1237 (1980) ("The major danger of scientific evidence is its potential to mislead the jury; an aura of scientific infallibility may shroud the evidence and thus lead the jury to accept it without critical scrutiny.")).

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10 Information on countermeasures is readily available. A search on the Internet by the Federal Bureau of Investigation Polygraph Unit produced some 3,000 hits. And many published sources on polygraphs contain discussions of countermeasures. See, *e.g.*, J. Matte, *Forensic Psychophysiology Using the Polygraph*, 531-548 (1996); S. Abrams, *The Complete Polygraph Handbook* 185-186 (1989); V. Kalashnikov, *Beat the Box: The Insider's Guide to Outwitting the Lie Detector* 9-13 (1986). Thus, a highly motivated person who felt the need to attempt to trick the polygrapher could easily find information for that purpose.

Even if the accuracy of polygraph testing approaches the 90 percent level that polygraph proponents claim,[11] the danger that jurors will view the polygraph "as an absolute indicator of truth creates an overwhelming potential for prejudice when inaccurate results are introduced." *Brown v. Darcy*, 783 F.2d 1389, 1396 (9th Cir. 1986). The prospect that relevant evidence may "weigh too much with the jury and *** so over persuade them" is a legitimate basis for a categorical rule of exclusion. *Old Chief v. United States*, 117 S.Ct. 644, 650 (1997) (quoting *Michelson v. United States*, 335 U.S. 469, 476 (1948) (discussing propensity evidence)).

Second, even if polygraph evidence did not have a potentially pervasive influence on the jury, the admission of such evidence would nonetheless tend to infringe on the jury's role of determining witness credibility. "[T]ruth is more likely to be arrived at by hearing the testimony of all persons of competent understanding who may seem to have knowledge of the facts involved in a case, leaving the credit and weight of such testimony to be determined by the jury or by the court." *Rock*, 483 U.S. at 54 (quoting *Washington v. Texas*, 388 U.S. at 22 (quoting *Rosen v. United States*, 245 U.S. 467, 471 (1918))). A polygrapher has no such "knowledge of the facts involved in a case," but rather can only purport to speak to the credibility of the subject at one particular examination.

Since time immemorial our system has entrusted credibility determinations to the judgment of juries, which assess credibility in reliance on their commonsense evaluations of demeanor, bias, and the plausibility of the narrative. See, *e.g., State v. Porter*, No. SC 15363, 1997 WL 265202, at *27 (Conn. May 20, 1997) ("The jury has traditionally been the sole arbiter of witness credibility."); *Perkins v. State*, 902 S.W.2d 88, 94 (Tex. Ct. App. 1995) ("Even though serious doubts remain about the reliability of polygraph evidence, its unreliability is not the primary reason for its exclusion under our holding. Instead, we find that such evidence should be excluded because it impermissibly decides the issues of credibility and guilt for the trier of fact and supplants the jury's function.") (footnote omitted); *State v. Beachman*, 616 P.2d 337, 339 (Mont. 1980) ("It is distinctly the jury's province to determine whether a witness is being truthful."). An expert who opines based on a polygraph examination that a testifying defendant was truthful at the time of the test duplicates the jury's credibility-assessing function. It is entirely legitimate for an evidentiary system to preserve for the factfinder its unique province of weighing credibility based on first-hand observation of witnesses and of making the ultimate determination of guilt or innocence. Cf. Fed.R.Evid. 608 (limiting opinion evidence to support or attack credibility); Fed.R.Evid. 704(b) ("No expert witness testifying with respect to the mental state or condition of a defendant in a criminal case may state an opinion or inference as to whether the defendant did or did not have the mental state or condition constituting an element of the crime charged or of a defense thereto. Such ultimate issues are matters for the trier of fact alone.").

That is especially true in the case of polygraph evidence. Unlike an abstruse area of science that ordinarily would be beyond the jury's ken unless explained by an expert witness, "[a] determination of whether a witness is telling the truth is well within the province of all jurors' understanding and abilities." *Porter*, 1997 WL 265202, at *27. See also D. Carroll, "How accurate is polygraph lie detection?" in *The Polygraph Test* 28 (A. Gale ed. 1988) ("an observer, regarding the [polygraph examinee's] general behaviour *** does just as well as an experienced polygraph examiner"). As one federal court of appeals succinctly put it, "the jury is the lie detector." *United States v. Barnard*, 490 F.2d 907, 912 (9th Cir. 1973), cert. denied, 416 U.SD. 959 (1974).

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See, *e.g.*, D. Raskin, *Methodological issues in estimating polygraph accuracy in field applications*, in 19 Canad. J. Behav. Sci./Rev. Canad. Sci. Comp. 389, 389 (1987). Raskin's claim has been sharply criticized. See, *e.g.*, Iacono and Lykken, in 1 Faigman, *supra*, at 610.

3. A per se prohibition on polygraph evidence serves the legitimate interest of avoiding unnecessary collateral litigation

Because of the many elements of subjectivity associated with polygraphy and the lack of widespread acceptance of it in the scientific community, attempts to admit results of a polygraph examination will produce lengthy collateral litigation regarding the validity of the technique in general and the reliability of test results in particular cases. In each case, the party against whom the test results are introduced can be expected to challenge the reliability of the results first before the court in an effort to prevent their admission and then, if they are admitted, before the jury. Because the validity of any particular polygraph test is dependent on a large number of variables--among them, the mental and physical suitability of the subject of the test, the competence and integrity of the examiner, the phrasing of the relevant questions, and the appropriateness of the control questions--the litigant has numerous potential avenues for attacking a test's reliability. The result in most cases is bound to be a time-consuming battle of experts who might differ not only on the validity of polygraphy in general, but also on the reliability of the particular polygraph test under consideration and the proper interpretation of the test results.

One state court has concluded that "the administration of justice simply cannot, and should not, tolerate the incredible burdens involved in the process of ensuring that a polygraph examination has been properly administered. If a trial court were to adequately police the reliability of [polygraph] results, the time required to explore the innumerable factors which could affect the accuracy of a particular test would be incalculable." *State v. Grier*, 300 S.E.2d 351, *United States v. Urquidez*, 356 F.Supp. 1363, 1367 (C.D. Cal. 1973); *State v. Dean*, 307 N.W.2d 628, 650 (Wis. 1981); *People v. Barbara*, 255 N.W.2d 171, 196 (Mich. 1977). Protracted battles between "experts" over the methodology, meaning, and appropriateness of polygraph tests can occur even in jurisdictions with extensive experience in litigating over the admissibility of polygraphs. See *Commonwealth v. Mendes*, 547 N.E.2d 35, 36-37 (Mass. 1989) (evidentiary hearing on polygraph results and motion for new examination took four days of court time even though polygraph evidence had been permitted in state courts for fifteen years).

4. Widespread judicial support for a prohibition on polygraph admissibility further supports the reasonableness of a per se rule

Uncertainty about the reliability of polygraph testing is reflected in the refusal of most courts to admit polygraph evidence. In promulgating Rule 707, it was not arbitrary of the President to take into account the overwhelming views of federal and state civilian courts on whether polygraph results should be admissible into evidence. The general rule in most States is that the results of polygraph examinations are inadmissible in criminal trials, primarily because of the lack of adequate scientific support for their reliability.[12] By and large,

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See, *e.g.*, *Porter*, 1997 WL 265202, at *2; *In re Odell*, 672 A.2d 457, 459 (R.I. 1996) (per curiam); *People v. Sanchez*, 662 N.E.2d 1199, 1210 (Ill. 1996), cert. denied, 117 S.Ct. 392 (1996); *Contee v. United States*, 667 A.2d 103, 104 n.4 (D.C. 1995); *Commonwealth v. Sneeringer*, 668 A.2d 1167, 11l74 (Pa. Super. Ct. 1995); *State v. Beard*, 461 S.E.2d 486, 492 (W. Va. 1995); *State. v. Campbell*, 904 S.W.2d 608, 614-615 (Tenn. Crim. App. 1995); *Petition of Grimm*, 635 A.2d 456, 464 (N.H. 1993); *State v. Patterson*, 651 A.2d 362, 366 (Me. 1994); *Conner v. State*, 632 So.2d 1239, 1257 (Miss. 1993), cert.denied, 513 U.S. 927 (1994); *People v. Angelo*, 618 N.Y.S.2d 77, 78 (App. Div. 1994), aff'd, 666 N.E.2d 1333 (N.Y. 1996); *State v. Walker*, 493 N.W.2d 329, 335 (Neb. 1992); *State v. Hawkins*, 604 A.2d 489, 492 (Md. 1992); *Morton v. Commonwealth*, 817 S.W.2d 218, 222

these courts adhere to the general rule even where the parties consent to admission of polygraph evidence, holding that "the reliability of the polygraph" is insufficient "to permit unconditional admission of the evidence." *Dean*, 307 N.W.2d at 653.[13]

In the federal arena, neither the United States Code nor the Federal Rules of Evidence has a specific provision concerning the admissibility of polygraph results. Under the "general acceptance" test for scientific testimony that prevailed under *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), however, the federal appellate courts traditionally upheld the exclusion of polygraph evidence on the ground that the scientific theory of polygraph testing had not achieved general acceptance.[14] In *Daubert v. Merrell Dow Pharmaceuticals*, 609 U.S. 579 (1993), the Court abandoned the *Frye* test and held that, under Federal Rule of Evidence 702, expert testimony may not be excluded solely because it is based on a scientific theory that has not yet achieved general acceptance; rather, the trial court must determine "whether the expert is proposing to testify to (1) scientific knowledge that (20 will assist the trier of fact." 509 U.S. at 592.[15] In the wake of *Daubert*, several courts of appeals have retreated from the categorical exclusion of polygraph evidence and have left the matter to trial

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(Ky. 1991); *State v. Staat*, 811 P.2d 1261, 1262 (Mont. 1991); *Tennard v. State*, 802 S.W.2d 678, 683 (Tex. Crim. App. 1990) (en banc) (per curiam), cert. denied, 501 U.S. 1259 (1991); *State v. Harnish*, 560 A.2d 5 (Me. 1989); *Haakanson v. State*, 760 P.2d 1030, 1034 (Alaska Ct. App. 1988); *Healy v. Healy*, 397 N.W.2d 71, 74 n.1 (N.D. 1986); *Johnson v. State*, 495 A.2d 1, 14 (Md. 1985), cert.denied, 474 U.S. 1093 (1986); *State v. Anderson*, 379 N.W.2d 70, 79 (Minn. 1985), cert. denied, 476 U.S. 1141 (1986); *State v. Dornbusch*, 384 N.W.2d 682, 685 (S.D. 1986); *State v. Copeland*, 300 S.E.2d 63, 69 (S.C. 1982), cert.denied, 460 U.S. 1103 (1983); *People v. Anderson*, 637 P.2d 354, 358 (Colo. 1981)(en banc); *State v. Biddle*, 599 S.W.2d 182, 185 (Mo. 1980); *State v. Catanese*, 368 So.2d 975, 981 (La. 1979); *State v. French*, 403 A.2d 424, 426 (N.H.), cert.denied, 444 U.S. 954 (1979); *State v. Steinmark*, 239 N.W.2d 495, 497 (Neb. 1976).

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See also, *e.g.*, *State v. Okumura*, 894 P.2d 80, 94 (Haw. 1995); *Mendes*, 547 N.E.2d at 41; *Robinson v. Commonwealth*, 341 S.E.2d 159, 167 (Va. 1986); *People v. Anderson*, 637 P.2d 354, 362 (Colo. 1981) (en banc); *State v. Biddle*, 599 S.W.2d 182, 187 (Mo. 1980) (en banc); *Pulakis v. State*, 476 P.2d 474, 479 (Alaska 1970).

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United States v. A&S Council Oil Co., 947 F.2d 1128, 1133-1134 (4th Cir. 1991); *Bennett v. City of Grand Prairie*, 883 F.2d 400, 405 & n. 7 (5th Cir. 1989); *United States v. Miller*, 874 F.2d 1255, 1261 (9th Cir. 1989); *United States v. Soundingsides*, 820 F.2d 1232, 1241 (10th Cir. 1987); *United States v. Murray*, 784 F.2d 188, 188 (6th Cir. 1986); *Brown*, 783 F.2d 1389 at 1394-1395. But see *United States v. Piccinonna*, 885 F.2d 1529, 1535 (11th Cir. 1989) (en banc) (polygraph evidence not inadmissible *per se*); *Anderson v. United States*, 788 F.2d 517, 519 n.1 (8th Cir. 1986) (polygraph evidence admissible by stipulation).

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The *Daubert* Court provided a non-exclusive list of several factors that the trial court should consider in determining whether an expert's testimony rests on scientific knowledge: whether the theory or technique can be and has been tested, whether it has been subjected to peer review, whether the technical has a high known or potential rate of error, and whether the theory has attained general acceptance within the scientific community. 509 U.S. at 593-594.

courts.[16] No court of appeals, however, has concluded that polygraph testing is scientifically valid or that the results of a polygraph test were reliable enough to be admitted into evidence.[17]

C. The Court of Appeals Erred in Its Analysis of the Per Se Bar On Polygraph Evidence

1. In concluding that Rule 707 violates the Sixth Amendment right to present a defense, the court of appeals relied on this Court's statement in *Rock v. Arkansas*, 483 U.S. at 61, that a "legitimate interest in barring unreliable evidence does not extend to *per se* exclusions that may be reliable in an individual case." Pet. App. 8a. The court of appeals then found no "significant constitutional difference" between the Court's holding that a State may not exclude a defendant's hypnotically refreshed testimony, and the issue presented here, which "concerns exclusion of evidence supporting the truthfulness of a defendant's testimony." *Id.* At 9a. If the court's interpretation of *Rock* were accepted, many categorical rules of exclusion found in the standard rules of evidence would be suspect. In fact, the court's reliance on *Rock* was misplaced.

Rock involved the defendant's constitutional right to testify and provide the jury with the defendant's own version of events. A bar of such evidence would seriously restrict the defendant's right to present a defense and would deprive the factfinder of highly relevant and probative information. At the same time, while hypnosis-induced recollections of the defendant may have an element of unreliability, the Court noted that the time-honored method for exposing weaknesses in testimony is cross-examination, 483 U.S. at 61, which may be coupled with expert testimony and cautionary instructions, *ibid.* In that setting, the Court held that a

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16 See *United States v. Cordoba*, 104 F.3d 225, 227-228 (9th Cir. 1997); *United States v. Williams*, 95 F.3d 723, 729 (8th Cir. 1996), cert.denied, 117 S.Ct. 750 (1997); *United States v. Kwong*, 69 F.3d 663, 667-669 (2d Cir. 1995), cert.denied, 116 S.Ct. 1343 (1996); *United States v. Sherlin*, 67 F.3d 1208, 1216-1217 (6th Cir. 1995), cert.denied, 116 S.Ct. 795 (1996); *United States v. Posado*, 57 F.3d 428, 434 (5th Cir. 1995).

17 In a variety of out-of-court settings, the United States government does conduct and make limited use of the results of polygraph examinations. For example, the Department of Defense views polygraphs as a tool that enhances the interview and interrogation process, especially in providing essential information to resolve national security issues and criminal investigations. Similarly, the Federal Bureau of Investigation conducts polygraphs within the context of criminal investigations, but its general policy cautions that "[t]he polygraph is to be used selectively as an investigative aid and results considered within the context of a complete investigation." FBI, Manual of Investigative Operations and Guidelines § 13-22.2(2) (1987). The investigative benefits of the polygraph have been described as follows:

> In the hand of a competent, well-trained and ethical examiner the polygraph can be a highly effective investigative tool. It can identify individuals who are withholding or distorting vital information, be one factor to eliminate possible suspects and even serve as a deterrent. Equally important, the psychological advantage created during the polygraph examination and interview process frequently results in confessions and admissions of guilt being obtained.

Murphy and Murphy, *supra*, at 2.

wholesale exclusion of the defendant's own testimony was not a proportionate means to respond to dangers to recollection posed by hypnosis.

In contrast to *Rock*, a defendant whose trial is governed by Rule 707 remains free to testify to his version of events. Rule 707 does not deprive the factfinder of the *substance* of the defendant's testimony; rather, it precludes only collateral polygraph evidence--to bolster or attack it. The validity of Rule 707 thus depends, not on a comparison to the result in *Rock*, but on an analysis of the interests underlying the per se prohibition on polygraph evidence. As we have discussed, the rule rationally serves valid interests in the fair and accurate adjudication of the ultimate issue. See pp. 18-33, *supra*. The court of appeals erred by failing to consider those interests.

2. The court of appeals also appeared to find Rule 707 arbitrary because other expert testimony is potentially admissible under Military Rule of Evidence 702, which permits a case-by-case inquiry pursuant to *Daubert v. Merrell Dow Pharmaceuticals, Inc. supra*. The Court observed that under *Daubert*, "the trial judge [acts as] a gatekeeper, trusted with responsibility to decide if novel scientific evidence was sufficiently relevant and reliable to warrant admission." Pet. App. 9a. *Daubert*, however, was not decided under the Sixth Amendment, and it does not preclude the adoption of otherwise-reasonable per se rules to govern particular forms of expert testimony. Indeed, even under *Daubert*, courts might conclude that an accumulated body of knowledge and experience with a particular category of "science" justifies a categorical determination that the evidence is not admissible under the rubric of "scientific knowledge."

In any event, polygraph evidence has sufficient distinctive features that it is not arbitrary to conclude that, unlike other forms of scientific evidence, polygraph results should be categorically barred from evidence. Although an element of judgment is usually present with respect to other scientific evidence that is routinely admitted at trials, such as analyses of ballistics, fingerprints, handwriting, voiceprints, and blood, polygraph testing, "albeit based on a scientific theory, remains an art with *unusual responsibility* placed on the examiner." *United States v. Wilson*, 361 F.Supp. 510, 512 (D. Md. 1973). More importantly, polygraph evidence is different from other scientific evidence in that it effectively consists of "an opinion regarding the ultimate issue before the jury, not just one issue in dispute." *Brown*, 783 F.2d at 1396. As the court explained in *United States v. Alexander*, 526 F.2d at 169, "[t]he role of the jury after a polygraphist has testified that the results of a polygraph examination show that the defendant's denial of participation in the crime was fabricated is much more circumscribed [then after the testimony of other scientific experts.] If the [polygraph] testimony is believed by the jury, a guilty verdict is usually mandated." The opposite would be true when a defendant supports his credibility by a polygraph examination. Finally, other types of scientific evidence are often indispensable to the resolution of particular factual issues. Polygraph evidence, on the other hand, is never indispensable in light of the traditional, time-tested tools available to juries for making credibility determinations. *Daubert* thus does not control this Court's analysis of the constitutional validity of the per se exclusion of polygraph evidence.

Notably, before *Daubert*, when the courts generally applied a per se bar against polygraph evidence under the *Frye* test, federal and state courts, found no Sixth Amendment obstacle to such a rule. See, *e.g.*, *Bashor v. Risley*, 730 F.2d 1228, 1238 (9th Cir.), cert.denied, 469 U.S. 838 (1984); *United States v. Gordon*, 688 F.2d 42, 44-45 (8th Cir. 1982); *Jackson v. Garrison*, 677 F.2d 371, 373 (4th Cir.), cert.denied, 454 U.S. 1036 (1981); *United States v. Glover*, 596 F.2d 857, 867 (9th Cir.), cert. denied, 444 U.S. 857, 860 (1979); *Connor v. Auger*, 595 F.2d 407, 411 (8th Cir.), cert. denied, 444 U.S. 851 (1979); *United States v. Lech*, 895 F.Supp. 582, 586 (S.D.N.Y. 1995); *People v. Price*, 821 P.2d 610, 663 (Cal. 1991), cert.denied, 506 U.S. 851 (1992); *People v. Williams*, 333 N.W.2d 577, 580 (Mich. Ct. App. 1983); *State v. Conner*, 241 N.W.2d 447,

457-458 (Iowa 1976).[18] The fact remains, even after *Daubert*, that polygraph evidence has characteristics that justify specialized treatment under the rules of evidence. It is not arbitrary for appropriate authorities to conclude that the costs and dangers of admitting the evidence outweigh any limited contribution that polygraph evidence might make to the fair disposition of criminal trials.[19]

II. THE SIXTH AMENDMENT DOES NOT COMPEL ADMISSIBILITY OF POLYGRAPH RESULTS IN COURTS-MARTIAL

The constitutional theory embraced by the court of appeals not only conflicts with general principles of Sixth Amendment law applicable in state and federal civilian courts, it is particularly unwarranted and onerous in the military context. Thus, even if the court of appeals' application of the Sixth Amendment principles in the civilian context had merit, it would not justify invalidating a military rule of evidence, because respondent cannot meet his burden of demonstrating that a service member's need to introduce polygraph evidence in courts-martial overcomes the determination by the President to promulgate a per se rule prohibiting such evidence.

A. Procedural Rules Adopted For Military Courts-Martial Are Entitled To Deference By This Court

The Constitution grants Congress the power "[t]o make rules for the Government and Regulation of the land and naval Forces." Art. I, § 8, Cl. 14. This Court has recognized that this power "creates an exception to the normal method of trial in civilian courts as provided by the Constitution and permits Congress to authorize military trial of members of the armed services without all the safeguards given an accused by Article III and the Bill of Rights." *Reid v. Covert*, 354 U.S. 1, 19 (1957) (plurality opinion).

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18 But see *United States v. Williams*, 39 M.J. 555, 558 (A.C.M.R. 1994) ("We held under the facts of this case that appellant's Fifth Amendment right to a fair trial by court-martial, combined with his Sixth Amendment right to produce favorable witnesses on his behalf, affords him the opportunity to be heard on these foundational matters [regarding polygraph reliability], and allows for the possibility of admitting polygraph evidence."), decision set aside, 43 M.J. 348, 354 (C.M.A. 1995) (holding polygraph inadmissible in this case because defendant did not take the stand), cert.denied, 116 S.Ct. 925 (1996).

19 Nor is Rule 707 an irrational ban on a category of evidence akin to those invalidated in *Washington v. Texas*, 388 U.S. 14 (1987), or *Crane v. Kentucky*, 476 U.S. 683 (1986). In *Washington v. Texas*, the Court held that a State could not prohibit a defendant from introducing the testimony of a co-defendant in order to prevent perjury, because it was "arbitrary" to disqualify an entire category of defense witnesses on the presumption that they were "unworthy of belief." 388 U.S. at 22. In *Crane v. Kentucky*, the Court held that a State could not bar evidence of the circumstances of a confession on the theory that the evidence had no relevance once the confession had been ruled voluntary. The Court explained that the evidence may remain highly relevant to the credibility of the confession, and that there was no "rational justification for the wholesale exclusion of this body of potentially exculpatory evidence." 476 U.S. at 691. As discussed in the text, there is a rational justification for treating polygraph evidence in a distinctive fashion.

It is well established that certain Fifth and Sixth Amendment rights enjoyed by civilians are not applicable to defendants in military proceedings. See, *e.g., O'Callahan v. Parker*, 395 U.S. 258, 261 (1969) ("The Fifth Amendment specifically exempts 'cases arising *in the land or naval forces*, or in the Militia, when in actual service in time of War or public danger' from the requirement of prosecution by indictment and, inferentially, from the right to trial by jury (emphasis supplied)."), overruled on other grounds, *Solorio v. United States*, 483 U.S. 435, 436 (1987); *Ex parte Quirin*, 317 U.S. 1, 40 (1942) (no right to Fifth or Sixth Amendment trial by jury in trials by military commission). Although persons tried by courts-martial cannot be denied the Fifth Amendment's guarantee of due process of law, this Court has determined that the tests for applying that right differ and that limitations on due process generally exist in the military context. See *Weiss v. United States*, 510 U.S. 163, 176-177 (1994); *Rostker v. Goldberg*, 453 U.S. 57, 67 (1981).

With respect to military trials, this Court has sanctioned the military's use of evidentiary and procedural rules that differ form those that prevail in civilian courts. See *O'Callahan v. Parker*, 395 U.S. 258 (1969) ("Substantially different rules of evidence and procedure apply in military trials."); *id.* At n.4 ("For example, in a court-martial, the access of the defense to compulsory process for obtaining evidence and witnesses is, to a significant extent, dependent on the approval of the prosecution.").[20]

In assessing the need for a military court to adopt a certain rule or practice constitutionally mandated in civilian tribunals, this Court looks to "whether the factors militating in favor of [the practice] are so extraordinarily weighty as to overcome the balance struck by Congress." *Weiss*, 510 U.S. at 177-178 (quoting *Middendorf v. Henry*, 425 U.S. 25, 44 (1976)). That test is highly deferential:

> [T]he Constitution contemplates that Congress has plenary control over rights, duties, and responsibilities in the framework of the Military Establishment, including regulations, procedures, and remedies related to military discipline. Judicial deference thus is at its apogee when reviewing congressional decision making in this area. Our deference extends to rules relating to the rights of service members: Congress has primary responsibility for the delicate task of balancing the rights of servicemen against the needs of the military.

Weiss, 410 U.S. at 177 (quotations and citations omitted). The court below erred in not giving the per se rule against polygraph admissibility the deference it deserved.

B. Respondent's Interest in Introducing Polygraph Evidence Does Not Outweigh The Reasons For Establishing A Per Se Rule Prohibiting Such Evidence

As this Court has recognized, "the military in important respects remains a "specialized society separate from civilian society," *Weiss*, 510 U.S. at 174 (quoting *Parker v. Levy*, 417 U.S. 733, 734 (1974); see also *Loving v. United States*, 116 S.Ct. 1737, 1751 (1996), whose essential function is "to fight or be ready to fight wars should the occasion arise." *United States ex rel. Toth v. Quarles*, 350 U.S. 11, 17 (1955); see also *Schlesinger v. Councilman*, 420 U.S. 738, 757 (1975). Military trials are "merely incidental to an army's primary fighting function." *Quarles*, 350 U.S. at 17. "To the extent that those responsible for performance of this primary function are diverted from it by the necessity of trying cases, the basic fighting purpose of

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20 Military courts are not compelled to adhere to rules of evidence grounded only in the Supreme Court's supervisory powers over the administration of justice in the federal courts. See, *e.g., Burns v. Wilson*, 346 U.S. 137, 145 & n.12 (1953).

armies is not served." *Ibid.* Thus, the introduction of procedural complexities into military trials is "a particular burden to the Armed Forces because virtually all the participants, including the defendant and his counsel, are members of the military whose time may be better spent than in possibly protracted disputes over the imposition of discipline." *Middendorf v. Henry*, 425 U.S. at 45-46.

The court of appeals' opinion does not reflect consideration of those factors, which have long informed this Court's assessment of rules designed for military trials. Nor does that decision accord the great deference properly due to the judgments of the political branches in this area. See, *e.g.*, *Weiss*, 510 U.S. at 177; *Goldman v. Weinberger*, 475 U.S. 503, 508 (1986). Invoking his powers under the Constitution, see Art. II, § 2, Cl. 1, and an express congressional delegation authorizing him to prescribe rules of evidence for courts-martial, see 10 U.S.C. 836(a), the President concluded that polygraph evidence is unnecessary for reliable credibility assessments, that its admission could confuse the trier of fact, and that case-by-case litigation about its admissibility would waste the time of service members whose "primary function" (*Quarles*, 350 U.S. at 17) is the Nation's defense. Against those considerations is respondent's assertion that the polygraph evidence would enhance his credibility in denying that he had used drugs since joining the Air Force. Yet prohibiting resondent from introducing the results of polygraph examinations neither lessens the prosecution's burden of proof nor limits respondent's opportunity to testify at a court-martial on any relevant topic. In light of the continuing disagreements among polygraph experts over the validity and reliability of polygraphs, the propensity of polygraph evidence to confuse the trier of fact, and the likelihood that the introduction of polygraph evidence would lead to lengthy disputes over the methodology and results of polygraph testing in a particular circumstance, respondent cannot carry his burden of demonstrating that "the factors militating in favor of [allowing polygraph evidence to be considered as evidence] are so extraordinarily weighty as to overcome the balance struck by Congress." *Weiss*, 510 U.S. at 177-178. Deference in formulating such an evidentiary rule is particularly appropriate where, as here, the scientific evidence on the validity of polygraphs is open to serious debate and polygraph test results may be manipulated. Thus, even if generally applicable Sixth Amendment principles were found not to justify a per se rule prohibiting polygraph evidence, the President and Congress may constitutionally establish such a rule in the context of courts-martial.

CONCLUSION

The decision of the court of appeals should be reversed.

Respectfully submitted.

WALTER DELLINGER
Acting Solicitor General
JOHN C. KENNEY
Acting Assistant Attorney General
MICHAEL R. DREEBEN
Deputy Solicitor General
DAVID C. FREDERICK
Assistant to the Solicitor General
JOEL M. GERSHOWITZ
Attorney

MICHAEL J. BRESLIN
Lt. Colonel, USAF
Appellate Government Division
Bolling Air Force Base

July 1997.

In the Supreme Court of the United States

October Term, 1996

No. 96-1133

United States of America, Petitioner

v.

Edward G. Scheffer

On Writ of Certiorari
To the United States Court of Appeals
For the Armed Forces

Brief for the Respondent

QUESTION PRESENTED

Whether Military Rule of Evidence 707, which provides that evidence of a polygraph examination is not admissible in court-martial proceedings, is an unconstitutional abridgement of military defendant's right to present a defense.

OPINIONS BELOW

The order and judgment of the United States Court of Appeals for the Armed Forces, reported at 44 MJ 442 (1996), is located at Pet. For Cert. App. A. The opinion of the United States Air Force Court of Criminal Appeals, reported at 41 MJ 683 (AF Ct. Crim App 1995), is located at Pet. For Cert. App. B.

JURISDICTION

The judgment of the United States Court of Appeals for the Armed Forces was entered on 18 September 1996. The jurisdiction of this Court is invoked under 28 U.S.C. § 1259(3) and 10 U.S.C. § 867a.

CONSTITUTIONAL PROVISIONS INVOLVED

The Fifth Amendment to the United States Constitution provides, in pertinent part:

> "No person shall be ... deprived of life, liberty, or property, without due process of law. ..."

The Sixth Amendment provides, in pertinent part:

> "In all criminal prosecutions, the accused shall enjoy the right ... to have compulsory process for obtaining witnesses in his favor. ..."

STATEMENT OF THE CASE

Petitioner's Statement of the Case is accepted except where noted.[1] On 10 April 1992, three days after voluntarily providing urine sample to agents of the Air Force Office of Special Investigations (AFOSI), the Air Force requested and the respondent agreed to take an AFOSI polygraph exam and did so the same day. The examination was administered by a government certified OSI polygraph examiner. The examiner asked three relevant questions: (1) Since you've been in the AF, have you used any illegal drugs?; (2) Have you lied about any of the drug information you've given OSI?; and (3) Besides your parents, have you told anyone you're assisting OSI? Respondent answered "No" to each question. In the examiner's opinion, there was no deception indicated (NDI) in respondent's responses. (J.A. 12.)

After he testified at trial, respondent attempted to introduce the results of this polygraph examination to support his testimony that he did not knowingly use drugs. The military judge ruled that the respondent could not even attempt to lay a foundation to admit the polygraph (J.A. 28, 49) because of Mil.R.Evid. 707 which states:

> (a) Notwithstanding any other provision of law, the results of a polygraph examination, the opinion of a polygraph examiner, or any reference to an offer to take, failure to take, or taking of a polygraph examination, shall not be admitted into evidence.
>
> (b) Nothing in this section is intended to exclude from evidence statements made during a polygraph examination which are otherwise admissible.

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1 Contrary to Petitioner's Brief at 7, the respondent was actually asked to provide a urine sample on 6 April 1992. J.A. 9. Though the respondent was unable to provide a sample that day because he urinated infrequently, this fact was no surprise to the OSI agents. During cross examination, the primary agent admitted that he knew as early as 10 March 1992 that the respondent indicated he only urinated infrequently. Record 128. He gave the sample the next day at approximately 8:00 a.m. Record 120. The respondent also voluntarily gave a urine sample on 10 March 1992 but no illegal drugs were detected. Record 127-128.

On appeal, the Air Force Court of Criminal Appeals affirmed the respondent's conviction. The United States Court of Appeals for the Arm Forces reversed, holding Mil.R.Evid. 707 was unconstitutional to the extent it denied an accused the opportunity to admit exculpatory scientific evidence. "We do not now hold that polygraph examinations are scientifically valid or that they will always assist the trier of fact, in this or any other individual case. We merely remove the obstacle of the *per se* rule against admissibility." Pet. For Cert.App.A, p. 11a.

SUMMARY OF ARGUMENT

The Court of Appeals for the Armed Forces' narrowly tailored holding--which "merely remov[ed] the obstacle of the *per se* rule [of Military Rule of Evidence 707] against admissibility" of an accused's exculpatory polygraph examination, offered by an accused who has testified and had his credibility attacked--should be affirmed.

I. Military Rule of Evidence 707 infringes upon a military accused's Sixth Amendment right to present a defense. It prevents an accused from laying a foundation for the admission of an exculpatory polygraph examination, even after his credibility has been attacked on cross-examination. The exclusion applies if the evidence is both relevant and reliable under the particular facts of an accused's case.

The President's interest in barring unreliable evidence does not extent to a *per se* exclusion of evidence that has been shown to be reliable and relevant in an individual case. The United States has the burden of establishing the constitutionality of its *per se* exclusionary rule of evidence because "[w]holesale inadmissibility ... is an arbitrary restriction on the right to testify in the absence of clear evidence by the State repudiating the validity of all [testimony]." *Rock v. Arkansas*, 483 U.S. 44, 61, (1987).

II. In *United States v. Gipson*, 24 MJ 246 (CMA 1987), the United States Court of Appeals for the Armed Forces ruled that polygraph examinations may be admissible under Mil.R.Evid. 702, depending on the particular circumstances of the case, the competency of the examiner, the nature of the particular testing process employed, and other such factors. *Id.* At 253. For the next four years, most military cases in which polygraph evidence was an issue involved an accused's attempt to lay a foundation for the admissibility of an exculpatory polygraph. Mil.R.Evid. 707 was created in 1991 because the drafters believed that: court members would be misled by polygraph evidence that was likely to be shrouded "with an aura of near infallibility in all cases;" that court members would abandon their responsibility to ascertain the facts and adjudge guilt or innocence; that court members would become confused about the issues in a case; that the admission of polygraph evidence would result in a substantial waste of time and place a burden on the administration of justice; and that the reliability of polygraph evidence had not been sufficiently established. Manual for Courts-Martial, (MCM), United States, App. 22, p. A22-48 (1995 ed.)

Mil.R.Evid. 707 is arbitrary and invalid because polygraphs have been shown to be sufficiently reliable on the basis of current research and real life experience. Further, the Federal government, law enforcement agencies, and the Department of Defense in particular, rely on polygraph results daily in criminal investigations and matters of national security.

Research and experience have also shown that polygraph evidence does not mislead or confuse juries, nor usurp their role. Nor is the admission of polygraph evidence an unjustifiable burden on the administration of justice, particularly in respondent's case, where the polygraph examination was administered by a government certified polygraph examiner at the government's request and no conflicting polygraphs were involved. Further, the courts have allowed highly complex and technical evidence, in this case urinalysis evidence, to be routinely admitted against an accused.

Most jurisdictions in the United States, do not have analogous *per se* exclusionary rules regarding polygraph evidence. In the federal system, the majority of circuits allow an accused to lay a foundation for the admission of his own polygraph examination.

New Mexico has admitted polygraph evidence without significant restrictions for the past twenty-two years. Its experience demonstrates that the reasons for the creation of Mil.R.Evid. 707 are arbitrary and invalid.

III. Finally, Mil.R.Evid. 707 is not entitled to any special deference by this Honorable Court because of the special or "unique" needs of the Armed Forces. In creating Mil.R.Evid. 707, the drafter's analysis to the rule did not discuss any such concern prompting creation of the rule. No special needs of the military were at issue in respondent's case, where the government had two alternative ways of checking whether respondent had used drugs--the polygraph exam which it requested and the urinalysis test which it also requested. As a result of its rules of evidence, only the incriminating results could be admitted at respondent's court-martial.

Polygraph evidence is sufficiently reliable and relevant to be constitutionally required when offered by an accused in his defense, after he has testified and his credibility has been attacked. An evidentiary rule of exclusion that forever bars an accused from establishing the relevancy and reliability of such evidence under such circumstances is unconstitutional.

ARGUMENT

I. The *Per Se* Rule Of Exclusion Of Polygraph Evidence Directed By Military Rule of Evidence 707 Violates Respondent's Sixth Amendment Right To Present A Defense

"Any rule that impedes the discovery of truth in a court of law impedes as well the doing of justice." — Justice Potter Stewart[2]

The United States argues that a *per se* rule of inadmissibility barring an entire category of scientific evidence, which numerous courts have found to be reliable and relevant, is constitutionally permissible. In *United States v. Posado*, 57 F.3d 428, 435 (5th Cir. 1995), the United States agreed that a *per se* rule against admitting polygraph evidence was no longer viable after *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993). Respondent believes the United States' position in *Posado* is the correct approach for a constitutional analysis.

The Fifth Amendment to the United States Constitution provides, in pertinent part: "No person shall be ... deprived of life, liberty, or property, without due process of law. ..." The Sixth Amendment provides, in pertinent part: "In all criminal prosecutions, the accused shall enjoy the right ... to have compulsory process for obtaining witnesses in his favor. ..." "The right to offer the testimony of witnesses, and to compel their attendance, if necessary, is in plain terms the right to present a defense, the right to present the defendant's version of the facts as well as the prosecution's to the jury so it may decide where the truth lies." *Washington v. Texas*, 388 U.S. 14, 19 (1967); *Rock v. Arkansas*, 483 U.S. 44, 52 (1987).

The combined effect of the Amendments is a requirement that criminal defendants be afforded "a meaningful opportunity to present a complete defense." *Crane v. Kentucky*, 476 U.S. 683, 690 (1986). An accused must be given a fundamentally fair trial in which he is afforded "an opportunity to be heard in his defense--a right to his day in court." *In Re Oliver*, 333 U.S. 257, 273 (1948); see also, *California v. Trombetta*, 467 U.S. 479, 485; (1984); *Washington v. Texas*, 388, U.S. 14 (1967).

"Few rights are more fundamental than that of an accused to present witnesses in his own defense." *Taylor v. Illinois*, 484 U.S. 400, 408 (1988); *Chambers v. Mississippi*, 410 U.S. 284, 302 (1973). As this Honorable Court noted in *Taylor*:

> We have elected to employ an adversary system of criminal justice in which the parties contest all issues before a court of law. The need to develop all relevant facts in the adversary system is both fundamental and comprehensive. The ends of criminal

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2 *Hawkins v. United States*, 358 U.S. 74, 81 (1958).

> justice would be defeated if judgments were to be founded on partial or speculative presentation of the facts.

Id. At 408-409. Mil.R.Evid. 707 violates this fundamental right by automatically denying any accused an opportunity to even attempt to lay a foundation for the admission of exculpatory scientific evidence at his court-martial, either during findings or as mitigation evidence in sentencing, and to present that favorable evidence if the proper evidentiary foundation is established.[3]

The Supreme Court provided a framework for addressing this issue in *Rock*:

> ... restrictions of a defendant's right to testify may not be arbitrary or disproportionate to the purposes they are designed to serve. In applying its evidentiary rules a State must evaluate whether the interests served by a rule justify the limitations imposed on the defendant's constitutional right to testify. ... Wholesale inadmissibility of a defendant's testimony is an arbitrary restriction of the right to testify in the *absence of clear evidence by the State repudiating [its] validity.* ...

483 U.S. at 55-56.

In *Rock*, this Court reversed a state court opinion that relied on a *per se* exclusionary rule without regard to the rights of the defendant. The defendant was charged with manslaughter based upon the shooting death of her husband. Because the defendant could not remember the precise details of the shooting, her attorney suggested that she submit to hypnosis in order to refresh her memory. She was, in fact, hypnotized twice but did not relate any new information during either of the sessions. After the hypnosis, however, she remember details of the shooting that were corroborated by other evidence in the case.

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It cannot be overemphasized that Mil.R.Evid. 707 bars polygraph evidence in all situations, even if an accused attempts to admit a polygraph examination as mitigation evidence during the sentencing phase of his death penalty case. In *Lankford v. Idaho*, without reading the admissibility of polygraph evidence in capital sentencing hearings, this Court acknowledged constitutional principles and persuasive argument for such evidence in the context of a capital case. 500 U.S. 110, 124 n.19 (1991) (noting that had petitioner been adequately notified of the capital character of his sentencing judge to consider polygraph evidence in mitigation based on Supreme Court precedent)(quoting *Lockett v. Ohio*, 438 U.S. 586, 604-605 (1978) which stated, " ... a statute that prevents the sentencer in all capital cases from giving independent mitigating weight to aspects of the defendant's character and record and to circumstances of the offense proffered in mitigation creates the risk that the death penalty will be imposed in spite of factors which may call for a less severe penalty. When the choice is between life and death, that risk is unacceptable. ...") Mil.R.Evid. 707 would exclude polygraph evidence by a military accused in such a case.

At the time of her trial, Arkansas had a *per se* exclusionary rule that did not allow the trial court to consider whether post-hypnosis testimony was admissible in a particular case. Acting on the government's pretrial motion, the trial court issued an order limiting the defendant's testimony to matters remembered and stated to the examiner prior to hypnosis.

In reviewing the scientific validity of hypnosis, this Court noted that "... there is no generally accepted theory to explain the phenomenon, or even a consensus on a single definition of hypnosis. The use of hypnosis in criminal investigations, however, is controversial, and the current medical and legal view of its appropriate role is unsettled." 483 U.S. at 59 (citation and footnote omitted). Moreover, the Court stated that "[w]e are not now prepared to endorse without qualifications the use of hypnosis as an investigative tool; scientific understanding of the phenomenon and of the means to control the effects of hypnosis is still in its infancy." 483 U.S. at 61. Nonetheless, the Court declared:

> Arkansas, however, has not justified the exclusion of all of a defendant's testimony that the defendant is unable to prove to be the product of pre-hypnosis memory. A State's legitimate interest in barring *unreliable evidence does not extend to per se exclusions that may be reliable in an individual case.* Wholesale inadmissibility of a defendant's testimony is an arbitrary restriction on the right to testify in the absence of clear evidence by the State repudiating the validity of *all* post-hypnosis recollections.

483 U.S. at 61 (emphasis added).

Petitioner attempts to distinguish *Rock*, as do various courts (*see* Brief of the State of Connecticut and 27 States as Amici Curiae, 10 n.6), by arguing that *Rock* dealt with an accused's right to testify, not a defendant's right to present witnesses in his defense. Brief for Petitioner, at 35. Such an argument, however, ignores the fact that an accused has a fundamental, constitutional right to present a defense--to call witnesses--not merely a right to testify. *Chambers*, 410 U.S. at 302. Both rights are "fundamental." The Sixth Amendment, on its face, is silent about an accused's right to testify in his own behalf. At the time the Constitution was adopted, the common law disqualification of parties as witnesses, and the disqualification of a defendant to testify in his own behalf, had existed for years. An accused, though, was allowed to call witnesses in his behalf. *Ferguson v. Georgia*, 365 U.S. 570, 573 (1961). Historically, the right to call witnesses by an accused can be said to be more fundamental than the right to testify. Respondent does not believe the *Rock* decision would have been different if it involved the hypnotically refreshed testimony of a witness who, after hypnosis, recalled that he, and not the accused, committed the crime and was willing to so testify.

The holding of this Court in *Rock* should apply with at least equal force to polygraph evidence, which is less controversial than hypnotically induced testimony. Although the current "legal view of its appropriate role is unsettled," blanket denial of a defendant's opportunity to lay a foundation for the admissibility of polygraph evidence is not justified. As with post-hypnosis

testimony, the United States attempts to bar defense exculpatory evidence "without regard to the reasons for it, the circumstances under which it took place, or any independent verification of the information it produced." *Id.* At 56. A State's legitimate interest in barring unreliable evidence does not extend to *per se* exclusions of evidence that may be reliable in an individual case in the absence of clear evidence by the State to the contrary. *Id.* At 61.

A few courts have held it is not unconstitutional to bar polygraph evidence that is favorable to the defense because they believe polygraph evidence has not been "generally accepted" as reliable. See, *e.g., United States v. Alexander*, 516 F.2d 161, 166 (8th Cir. 1975); *People v. Price*, 1 Cal. 4th 324, 821 P.2d 610, 663 (1991); *State v. Black*, 109 Wash.2d 336, 346-47, 745 P.2d 12 (1987). These decisions overlook that polygraph evidence is sufficiently reliable in particular cases, and can be very critical to a defendant's case. "In a given case, this Court's decisions may require that exculpatory evidence be admitted into evidence despite state evidentiary rules to the contrary." *Israel v. McMorris*, 455 U.S. 967 (1982)(Rehnquist, C.J., O'Connor, J., dissenting to denial of *certiorari*).

In *Washington v. Texas*, the defendant was convicted of murder with malice. At trial, he attempted to call Charles Fuller, a co-participant in the same murder. Fuller would have testified that the defendant tried to persuade him to leave, and that the defendant ran away before Fuller shot the victim. At trial, two Texas statutes prohibited Fuller, a co-participant, from testifying for the defendant. This Honorable Court held that the defendant was denied his right to compulsory process because "the State arbitrarily denied him the right to put on the stand a witness who was physically and mentally capable of testifying to events he had personally observed, and whose testimony would have been relevant and material to the defense." *Washington*, 388 U.S. at 23.

The teaching of *Chambers v. Mississippi*, is that evidentiary rules "may not be applied mechanistically to defeat the ends of justice." 410 U.S. at 302. In *Chambers*, the defendant was convicted of murdering a policeman. After his arrest, but prior to trial, another man, McDonald, confessed to the murder in a sworn, written statement and in unsworn, oral statements to others on three separate occasions. McDonald was called as a defense witness, but repudiated his sworn statement. The defendant was unable to present a defense by cross-examining him due to a state rule preventing a party from impeaching its own witness. McDonald's oral confessions to others were excluded from evidence as inadmissible hearsay. This Court held that although the defendant was able to "chip ... away at the fringes" of McDonald's story by the admission of other evidence, his defense was "far less persuasive than it might have been had he been given an opportunity" to present a complete defense. 410 U.S. at 294. This Court held that the combination of the two evidentiary rules as applied in *Chambers* denied the defendant his right to a fundamentally fair trial. 410 U.S. at 303. See also *Crane v. Kentucky*, 476 U.S. 683 (1986)(exclusion of testimony about the circumstances of a confession deprived the defendant of his right to present a defense); *Davis v. Alaska*, 415 U.S. 308 (1974)(petitioner's right of confrontation is paramount to the State's rule prohibiting cross-examination of government witness concerning his probationary status as a juvenile delinquent.)

In *Michigan v. Lucas*, 500 U.S. 145 (1991), the defendant was tried for the rape of his ex-girlfriend. Michigan had a "rape-shield" law designed to protect victims of rape from harassing or irrelevant questions concerning their past sexual behavior. An exception to this rule allowed admission of evidence that was materially relevant, such as the defendant's past sexual conduct with the victim, provided that he followed certain notice procedures. The defendant did not give the required notice but at trial sought to admit the evidence of his past sexual conduct with the victim. The trial court refused to allow the evidence and the Michigan Court of Appeals reversed, finding the exclusion based on a notice requirement *per se* unconstitutional. This Court held that the notice requirement can justify the exclusion of such evidence, in some cases. It did not decide whether the preclusion in that case was proper. Contrary to petitioner's argument, (Brief for Petitioner, at 15) the statutory notice requirement did not prohibit exculpatory evidence from being admitted by the defense but only placed a procedural prerequisite accelerating the timing of the disclosure to the prosecution. The rule did not *per se*, under all circumstances, exclude the evidence. See *Williams v. Florida*, 399 U.S. 78 (1970)(notice requirement to present alibi defense).

Respondent recognizes that an accused's right to present relevant evidence is not absolute. As in *Lucas*, this Court has noted that procedural and evidentiary rules control the presentation of evidence. *Rock*, 483 U.S. at 55 n. 11; *Washington v. Texas*, 388 U.S. at 23, n. 21; *Montana v. Egelhoff*, ___ U.S. ___, 116 S.Ct. 2013, 2022 (1996). This Court has indicated that, *in any particular case*, evidence may be excluded "through the application of evidentiary rules that themselves serve the interests of fairness and reliability--even if the defendant would prefer to see the evidence admitted," *Crane*, 476 U.S. at 690. This rationale, however, should not extend to *per se* exclusions of an *entire class* of exculpatory evidence.

Petitioner argues Mil.R.Evid. 707 does not abridge the Sixth Amendment by analogizing it to several standard rules of evidence that prohibit the admission of relevant, exculpatory evidence, such as Fed.R.Evid. 403, 404(b), 501, 702, 704, and 802. Brief for Petitioner, at 15-17. However, such rules do not set up *per se* bars to the introduction of the underlying evidence in all cases. For example, the hearsay rules do not exclude the underlying evidence when otherwise admissible and include a number of exceptions that allow consideration of hearsay evidence. Similarly, Fed.R.Evid. 403 excludes unduly prejudicial evidence on a case by case basis. Fed.R.Evid. 404(b) does not, as petitioner claims, *per se*, exclude evidence of other crimes or wrongs. The rule, instead, permits such evidence to prove among other things, bias, motive, intent, preparation, plan, knowledge, identity, and opportunity. Further, Fed.R.Evid. 405(b) allows specific instances of conduct to prove character when a trait of character is an essential element of an offense or *defense*. Though evidentiary rules may sometimes exclude relevant, exculpatory evidence, there are limits that prevent the exclusion of entire categories of evidence for all time. *Montana v. Egelhoff*, ___ U.S. ___, 115 S.Ct. At 2017 (1996).

The constitutional infirmity of Mil.R.Evid. 707 is vividly demonstrated by its unfair application in the respondent's trial. Here, the government itself asked Airman Scheffer to consent to a polygraph examination in order for him to continue operating as their undercover source. Pet. For

Cert. App. 2a; J.A. 10. He agreed to do so and on 10 April 1992, three days after consenting to the OSI agent's request to take a urinalysis test, passed the OSI's polygraph examination. J.A. 11-12. All this took place one month before he was accused of illegally using methamphetamine, based on the results of his urinalysis. J.A. 2. Though the prosecution had two disparate pieces of evidence on the issue of knowing drug use, they offered only those results inculpating Airman Scheffer. To further exacerbate this unfairness, the prosecution opposed the defense's attempt to lay a foundation to admit his exculpatory polygraph. After the military judge refused to admit the exculpatory evidence, applying Mil.R.Evid. 707's *per se* ban, the prosecution presented its case-in-chief that included more than three hours of testimony by their drug testing expert. Record 152-159. Airman Scheffer testified, denying he knowingly ingested methamphetamine. J.A. 34. He was then cross-examined by the trial counsel. J.A. 35-37.

After the presentation of evidence, the military judge instructed the members, "[u]se of a controlled substance may be inferred to be wrongful in the absence of evidence to the contrary." Record 334. During closing argument, the trial counsel asserted this permissive inference in trying to persuade the members to convict Airman Scheffer. J.A. 54-55. Knowing full well respondent passed his polygraph, trial counsel vigorously and repeatedly argued Airman Scheffer was a "liar," had no "credibility," and should not be believed. J.A. 57, 61-62.[4] "The only way you can find him not guilty of these offenses, is if you believe his story." J.A. 62.

Airman Scheffer was not given a chance to further explain why the court members should believe his story. Respondent's polygraph examination was relevant, reliable, exculpatory evidence that would have assisted the court members in making an informed decision as to whether he was worthy of belief. Mil.R.Evid. 707's *per se* ban on the admission of the respondent's polygraph results violated his right to present a defense under the 6th Amendment.

II. The Reasons Set Forth For The Creation Of Military Rule of Evidence 707 Are Neither Reasonable Nor Valid And Do Not Overcome A Defendant's Sixth Amendment Right To Present A Defense

Mil.R.Evid. 707 was promulgated in 1991. Prior to its adopting, the then named Court of Military Appeals decided the case of *United States v. Gipson*, 24 MJ 246 (CMA 1987). The Court held that polygraphs could be admissible under Mil.R.Evid. 702, assuming a proper foundation had been laid by the proponent. During the next four years, military appellate courts decided approximately nine cases involving the admissibility of polygraph evidence. Overwhelmingly, the cases dealt with an accused attempting to lay a foundation for the admission of an exculpatory

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Trial counsel summed up his argument by declaring "[t]he only way one can find him not guilty of these offenses, is if you believe his story. If you are to believe that, this time he is telling the truth. Maybe he lied in the past. But, he's telling us the truth now. That's the only way." J.A. 62.

polygraph.[5] These cases are strong empirical evidence that Mil.R.Evid. 707 was created to prevent what was the clear trend involving the admission of polygraph evidence in courts-martial after *Gipson*--an accused's attempt to lay a foundation for the admission of exculpatory polygraph evidence.

The drafter's analysis to Mil.R.Evid. 707 sets forth five reasons for the *per se* exclusion of polygraph evidence:

> ... There is real danger that court members will be misled by polygraph evidence that "is likely to be shrouded with an aura of near infallibility ..." To the extent that the members accept polygraph evidence as unimpeachable or conclusive, despite cautionary instructions from the military judge, the members' "traditional responsibility to collectively ascertain the facts and adjudge guilt or innocence is preempted." ... There is also a danger of confusion of the issues, especially when conflicting polygraph evidence diverts members' attention from a determination of guilt or innocence to a judgment of the validity and limitations of polygraphs. ... Polygraph evidence can also result in a substantial waste of time ... [and] places a burden on the administration of justice that outweighs the probative value of the evidence. The reliability of polygraph evidence has not been sufficiently established and its use at trial impinges upon the integrity of the judicial system.

MCM, United States, 1984, App. 22, p. A22-48 (citations omitted). None of these reasons justify a *per se* rule excluding polygraph evidence in all cases.

A. The Reliability of Polygraphs Has Been Sufficiently Shown In The Scientific Community

In 1923, James Frye was accused of murdering a doctor. Later, Dr. William Marston placed a blood pressure cuff around one arm and measured Frye's systolic blood pressure at different intervals in response to a series of questions. Marston concluded that Frye answered truthfully when he denied killing the doctor. S. Abrams, *The Complete Polygraph Handbook*, p. 3 (1989). The court refused to admit this evidence, finding the procedure involved was not generally accepted in the

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Gipson, supra; United States v. Howard, 24 MJ 897 (CGCMR 1987), pet. denied, 26 MJ 231 (CMA 1988)(defense evidence); *United States v. Abeyta*, 25 MJ 97 (CMA 1987), cert.denied, 484 U.S. 1027 (1988)(defense evidence); *United States v. Berg*, 32 MJ 141 (CMA 1991)(defense evidence); *United States v. Jensen*, 25 MJ 284 (CMA 1987)(defense evidence); *United States v. Pope*, 30 MJ 1188 (CMA 1990), pet. denied, 32 MJ 249 (CMA 1990)(defense evidence); *United States v. Blanchard*, ACM 28428, (ACMR 1991)(defense evidence); *United States v. Rodriquez*, 37 MJ 448 (CMA 1993)(gov't evidence); *United States v. Baldwin*, 25 MJ 54 (CMA 1987)(gov't evidence).

scientific community in 1923. *Frye v. United States*, 293 F.1013 (D.C. Cir. 1923). Despite the resulting stagnant judicial approach to polygraph evidence, the *science* of the polygraph testing advanced steadily through the years. Today, the instrumentation, methodology, training, and quality control associated with polygraph testing have advanced to a point that would be unrecognizable to the *Frye* court.

Though the petitioner attempts to persuade this Honorable Court that polygraph testing is unreliable (Brief for Petitioner, at 18-26), this broad declaration fails to withstand careful scrutiny. The psychophysiological detection of deception,[6] commonly called the polygraph examination, has evolved over a period of more than seventy years to become a valid and reliable means of resolving questions of deception.

Contrary to petitioner's argument, leading practitioners in the field of polygraph fiercely support its use, utility and reliability, particularly the Department of Defense. See generally AFOSI Pamphlet 71-125, *The Air Force Commander's Guide to the USAF Polygraph Program*, April 1997 (B. Stern). The Department of Defense (DoD) has been using the polygraph for almost half a century and views the polygraph as " ... clearly one of our most effective investigative tools."[7] Within DoD the polygraph is used in criminal and counterintelligence investigations, foreign intelligence and counterintelligence operations, exculpation requests, and as a condition for granting access to certain sensitive positions, information or facilities. *Ibid.*

A polygraph examination consists of four distinct phases: (1) pretest, (2) in-test, (3) test-data-analysis and (4) post-test. During the pretest phase, the examiner lays the foundation for the entire examination and comprehensively reviews, with the examinee, each question to be asked during the in-test phase of the examination.[8] When questions are posed during the in-test phase, the examinee

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The term "psychophysiological detection of deception" of PDD has been part of scientific literature since 1921. However, the term "polygraph" was generally accepted. W. Yankee, *A Case for Forensic Psychophysiology and Other Changes in Terminology*, undated. With the scientific, technological and other recent advancements that have occurred with the polygraph, including use of computerized polygraph instrumentation, scoring algorithms, formal quality assurance and continuing education programs, PDD is a more accurate and descriptive term. AFOSI Pamphlet 71-125, *The Air Force Commander's Guide to the USAF Polygraph Program*, April 1997 (B. Stern).

7

Fiscal Year 1996 DoD Polygraph Program Annual Polygraph Report to Congress, Office of the Assistant Secretary of Defense (OASD) for Command, Control, Communications, and Intelligence (C31), Executive Summary, p. 8.

8

See Department of Defense Polygraph Institute (DoDPI), Forensic Sciences Court 501, *Pretest Interview*, Student Handout, Nov. 94.

will subjectively analyze each question and attach a certain degree of significance to it. The examinee will then cognitively process that information further and consciously decide whether to answer the question truthfully. While the examinee is going through this evaluation process, there is a corresponding involuntary physiological change brought about by the sympathetic branch of the body's autonomic nervous system.[9] This is recorded by the physiological sensors of the polygraph instrument and subsequently analyzed during the test-data-analysis phase. W. Yankee, *supra*, at 1; AFOSI Pam 71-125, *supra*, p. 12, 25.

Typically, there are three types of physiological recording sensors used during a polygraph examination: (1) pneumograph, (2) electrodermal, and a (3) cardiovascular sensor. The pneumograph sensor records respiration and consists of two rubber tubes placed across an examinee's upper thoracic cavity and diaphragm.[10] The electrodermal sensor records sweat gland activity (palmar sweating) through two finger plates placed on the underside of an examinee's hand. The cardiovascular sensor records mean arterial blood pressure, heart rate, blood volume changes and other associated cardiovascular activity by using a standard medical blood pressure cuff (typically on the upper arm but can be placed elsewhere on the body). D. Weinstein, *Anatomy and Physiology for the Forensic Psychophysiologist*, June 1994 (Revised).

There are three general types of questions used in polygraph examinations. The first type is called "relevant questions," which pertain directly to the issue under investigation (*e.g.*, "Did you shoot Sharon?").[11] Relevant questions are used to explore direct or indirect involvement, connection to evidence, or one's guilty knowledge. The second type, "irrelevant questions" (also known as "norm" or "neutral" questions), is non-emotion invoking in nature (*.e.g.*, "Are the lights on in this room?"). These questions are used to absorb orientating responses to the onset of questioning, general nervous tension and assist in establishing an examinee's physiological baseline. Finally, "comparison questions," (also known as "probable lie" or "control" questions) are used. These

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Petitioner's Brief at 3 incorrectly refers to the autonomic nervous system as the "autonomous" nervous system.

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Petitioner's Brief at 3 suggests that a standard polygraph examination utilizes only one pneumograph sensor. The DoDPI teaches examiners to use two pneumograph tubes because it is well established that the intercostal muscles (located in the chest or thoracic cavity) respond to different nerve innervation than does the diaphragm. D. Weinstein, *Anatomy and Physiology for the Forensic Psychophysiologist*, June 1994 (Revised).

11

Petitioner's Brief at 3 refers to one of the three broad categories of questions asked during a polygraph examination as "direct" questions when, in fact, questions pertaining directly to the issue under investigation are known throughout the research and polygraph community as "relevant" questions. *Test Question Construction* Student Handout, DoDPI, July 1995.

questions explore matters similar in nature to the issue under investigation but are differentiated from relevant questions by a prefatory clause related to time, place or category (*.e.g.*, "Prior to 1997, did you ever even think about hurting someone?"). *Ibid.*

Comparison question tests (CQT) are the most common testing format used in law enforcement[12] and are widely applied in the national security system of the United States.[13] The premise behind the CQT technique is that the guilty and innocent examinee will differ in their physiological reactions to relevant and comparison questions. Innocent examinees are expected to produce greater physiological arousal to comparison questions than to relevant questions. This is because innocent examinees are *certain* of the veracity of their responses to the relevant questions and will either lie, not fully disclose, or be less certain about the veracity of their responses to the comparison questions. The deceptive individual is expected to show greater physiological arousal to the relevant questions. *Ibid.*[14]

Several recognized theories explain the causes of the physiological responses elicited when an examinee is found to be lying or deceptive.[15] The most generally accepted theory is that a deceptive person's response is a result of the fear of detection. Fear is an emotion that results in physiological arousal. The degree of arousal is proportional to the fear experienced by the examinee.

An examiner renders one of four diagnostic opinions during the test-data-analysis phase: (1) No Deception Indicated, (2) Deception Indicated, (3) Inconclusive, and (4) No Opinion. AFOSI Pam. 71-125, *supra*, p. 20. The original examiner's opinion, at least within the Air Force and most

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G. Barland, *Standards for the Admissibility of Polygraph Evidence*, 16 U. West. L.A.L. Rev. 37, 46 (1984).

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C. Honts, D. Raskin, and J. Kircher, *Mental and Physical Countermeasures Reduce the Accuracy of Polygraph Tests*, 70 Journal of Applied Psychology, 79 (1994).

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See also J. Reid and F. Inbau, *Truth and Deception: The Polygraph (Lie Detector Technique)*, at 28 (1973).

15

G. Barland, *Theories of Detection of Deception* Handout, DoDPI, (1982). Dr. Barland's handout is a comprehensive evaluation of the predominate theories surrounding the detection of deception, two of the most accepted theories, fear of detection and psychological set theory, are addressed in this Brief.

federal government agencies, can only be authenticated after one, and often two, independent layers of quality control review.[16]

During the post-test phase, the examiner advises the examinee of his or her diagnostic opinion. If no deception is indicated, the examination is complete. If deception is indicated the examiner will often attempt to ascertain the reason for the deceptive results. If the results are "inconclusive," additional testing may be conducted until the matter under investigation is resolved. If for any reason the examination is stopped and a conclusive diagnostic opinion cannot be made, the examiner will render a "no opinion" decision. AFOSI Pam. 71-125, *supra*, at 20-21.

Numerous studies have been conducted on polygraph testing.[17] Current research demonstrates that polygraph testing is scientifically reliable and represents a valid measure of an examinee's deceptiveness or lack thereof. Research into the validity of polygraph examinations essentially falls into two types of experimentation--laboratory and field studies.[18]

Most researchers estimate that the polygraph procedure accurately assesses deception or a lack thereof over 90% of the time.[19] Though petitioner's brief relies upon the work of Dr. Lykken to criticize the field of polygraphy in general, Lykken, in fact, *promotes* a particular type of polygraph

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The Air Force Office of Special Investigations is the executive agency for the Air Force Polygraph Program. Within the Air Force, there are two layers of quality control review. The first review is conducted at the operational field level by the examiner's field supervisor. The second and final quality control review is accomplished at the Air Force Polygraph Program Office. AFOSI Instruction 71-117, *Specialized Investigative Services*, 17 December 1996.

17

See generally, N. Ansley, *Compendium on Polygraph Validity*, 12(2) Polygraph 53-61 (1983); N. Ansley, *The Validity and Reliability of Polygraph Decisions in Real Cases*, 19(3) Polygraph 169-181 (1990).

18

Since lab studies use a mock crime to assess whether the examinees are being deceptive, such studies have the advantage of knowing the "ground truth" of which examinee "committed" the crime in question. However, such examinees are not facing the real life prospect of criminal prosecution and, therefore, do not present the same degree of physiological stimulation as a real-life suspect. As for field studies, "ground truth" may be difficult to ascertain but the examinees display real physiological reactions. S. Abrams, *The Complete Polygraph Handbook*, p. 181-182 (1989).

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J. Matte, *Forensic Psychophysiology Using the Polygraph*, Pp. 121-129 (1996). The author provides an exhaustive survey of the numerous studies and reviews of such studies concerning the various types of polygraph techniques.

technique, the guilty knowledge test (GKT). Dr. Lykken firmly believes the GKT technique will accurately determine whether an examinee possesses knowledge of the particulars of a crime only possessed by a guilty person.[20]

Petitioner also cites the 14-year-old Office of Technology Assessment (OTA) Study as a basis to conclude that polygraph testing today is invalid and unreliable. The study responded to a request from Congress to review and evaluate then current scientific evidence about the validity of polygraph testing. U.S. Congress, Office of Technology Assessment, *Scientific Validity of Polygraph Testing: A Research Review and Evaluation--A Technical Memorandum* (OTA-TM-H-15, Nov. 1983)(OTA Study). The study, although initially touted as a comprehensive review, was subsequently criticized for use of an improper statistic (the *lambda* statistic) and for treating "inconclusive" test results as errors.[21] The OTA Study substantially undervalued the accuracy of polygraph testing, particularly in its review of various laboratory studies. McCauley and Forman, *A Review of the Office of Technology Assessment Report on Polygraph Validity*, Basic and Applied Social Psychology, 9(2), p. 74, 79 (1988). As such, the petitioner's reliance upon the conclusion of the OTA Study--that polygraph tests in criminal investigations have significant error rates--is undermined by the study's suspect statistics.

Petitioner cites a few judicial opinions that attach significance to the fact that a polygraph test is not replicable. Yet, many types of scientific evidence encounter no judicial resistance simply because a test result is not replicable. For example, the science of handwriting analysis typically involves the comparison of a questioned document with a large number of exemplars. P. Giannelli & E. Imwinkelried, *Scientific Evidence*, § 21-2, at 141, 148 (2 ed. 1993). This is essential for two reasons: (1) no person will write a word the same way twice; and (2) if the suspect attempts to disguise his/her true writing style, a large number of exemplars will make such an effort at deception easier to detect. The exemplars are not replicated. Like handwriting analysis, polygraph examinations involve comparisons. It is the differential physiological responses between relevant and comparison questions that a trained examiner is looking for in order to assess an examinee's credibility. As such, truly replicable tests are not necessary to reach an accurate assessment.

Petitioner's argument is further undermined when one considers the universal acceptance of handwriting analysis in courts of law today. *Ibid.* At 179. Despite research that details high error

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D. Lykken, *Detection of Guilty Knowledge, A Comment on Forman and McCauley*, 73 J.App. Psych. 303-304 (1988).

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An "inconclusive" opinion simply means that additional testing is required to render a conclusive diagnostic opinion. Therefore, it is not an error for the examiner to render an inconclusive opinion. *Ibid.*

rates--some as high as 87%--among questioned document examiners, courts continue to admit such evidence. *Ibid.* At 180.[22]

Polygraphs have also been compared to other types of evidence. A laboratory study was conducted in 1977 to assess the validity of the CQT technique in comparison to fingerprint identification, handwriting analysis, and eyewitness identification.[23] The study found the CQT polygraph technique was best able to correctly resolve a mock crime. When the data included "inconclusive" opinions, the polygraph produced a correct result 90% of the time. Polygraph testing was accurate 95% of the time when "inconclusive" opinions were excluded from the data. *Ibid.*, at 598. Fingerprint identification, handwriting analysis, and eyewitness identification are all used in trials.[24] Yet, under Mil.R.Evid. 707, polygraph evidence is excluded without exception.

Petitioner expressed a belief that a "highly motivated subject" might employ countermeasures to thwart the examination process. However, research indicates the spontaneous use of countermeasures is ineffective against the CQT technique. C. Honts, D. Raskin, & J. Kircher, *Mental and Physical Countermeasures Reduce the Accuracy of Polygraph Tests*, 79 J.A.Psych. 292 (1994). Additionally, the U.S. Government has spent considerable funds to develop countermeasure detectors. *Ibid.*, at 252.[25] Any possible problem with countermeasures in a given test is best explored through the time-honored mechanism of cross-examination. Cf. *Rock*, 483 U.S. at 61.

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The referenced study by Professor Denbeaux reported accuracy rates as low as 13%. More recent studies call into question whether the accuracy rate is this low. P. Giannelli & E. Imwinkelried, *Scientific Evidence*, § 21-7(A), at 40 (2 ed. 1996 Cumulative Supplement).

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J. Widacki & F. 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. 598-601 (1978).

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By way of contrast, see *State v. Klawitter*, 518 N.W.2d 577 (1994), wherein the Supreme Court of Minnesota had no difficulty admitting prosecution evidence concerning the "horizontal gaze nystagmus" test despite testimony revealing significant criticisms of the technique and subjectivity of the eye test portion of the protocol.

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Ongoing research into countermeasures by the Department of Defense is reported annually to Congress.

Other concerns courts have with polygraphs have been resolved through training requirements. The DoD Polygraph Institute[26] (DoDPI) is generally considered to be the best training facility for polygraph examiners in the United States.[27] All Air Force polygraph examiners (including respondent's examiner) must meet stringent qualifications.[28] Additionally, AFOSI examiners must complete the DoDPI basic courses in forensic psychophysiology (14 weeks in length, covering 560 hours of in residence instruction), must conduct approximately 50 polygraph examinations during initial training, and serve a minimum six month internship, under the supervision of a certified examiner. Examiners must also receive 80 hours of continuing education every two years. With such stringent training requirements and testing protocols in place within the DoD, petitioner's claim that polygraph examiners inject a "high degree of subjectivity into the examination" is without merit. Brief for Petitioner at 23.

Respondent was administered a polygraph examination by a fully certified and experienced DoD examiner using standard rules of test protocol. The examination, like all others in the Air Force, was authenticated by quality control supervisors conducting "blind" reviews, both at the field and headquarters polygraph program office levels before it was finalized with a No Deception Indicated assessment.

Though petitioner argues that polygraph testing should be the subject of an absolute exclusionary rule, such an argument fails to acknowledge the validity of such testing, especially within

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The DoDPI is a federally funded institution, under the authority, direction and control of the Defense Investigative Service, that provides introductory and continuing education courses in forensic psychophysiology. Its purpose is twofold: (1) to qualify DoD and non-DoD federal personnel for careers as forensic psychophysiologists, (2)to provide continuous research in forensic psychophysiology and credibility assessment methods. The Institute's *Basic Course in Forensic Psychophysiology* is the only program known to base its curriculum on forensic psychophysiology and conceptual, abstract, and applied knowledge that meets the requirements of a master's degree-level of study. AFOSI Pam. 71-125, *supra*, at 18.

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C. Honts & M. Perry, *Polygraph Admissibility Changes and Challenges*, 16 Law & Human Behavior 357, 370 (1992).

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DoD Directive 5210.48 states that every polygraph examiner candidate must be a U.S. citizen; be 25 years old; have graduated from an accredited 4-year college (or equivalent) plus have 2 years as an investigator with a U.S. government or other law enforcement agency; be of high moral character and sound emotional temperament, based upon a background investigation; and, finally, be judged suitable for the position after successfully taking a polygraph examination.

the United States Government itself.[29] As reported to Congress in fiscal year 1996, the DoD conducted 12,548 examinations, with 21.5% occurring during a criminal investigation and another 4.6% occurring at the specific request of a criminal suspect for exculpation purposes. *Ibid.*, at 1. These annual reports reflect a tremendous reliance upon polygraph testing to resolve issues ranging from a small bank theft to espionage allegations affecting national security. See also *Cooke v. Orser*, 12 MJ 335 (CMA 1982).

The *per se* bar of Mil.R.Evid. 707 ignores the voluminous research showing polygraph testing is accurate and reliable when used by highly trained examiners employing well-accepted techniques, such as CQT in criminal investigations. A critical analysis of the literature reveals discrete and differing opinions about the accuracy of polygraph testing, depending upon the type of technique employed and qualifications of the examiners conducting the various tests. See generally, J. Matte, *Forensic Psychophysiology Using the Polygraph*, Pp. 102-155 (1996). Lumping the techniques and research together to advance a broad conclusion about the accuracy of polygraph testing is inappropriate and reveals the fundamental flaw behind Mil.R.Evid. 707's blanket ban of polygraphs, a ban so absolute it even bars the mention of the word "polygraph" in a courts-martial.

This Honorable Court has not looked favorably upon *per se* exclusion rules involving a concern that evidence may be unreliable. In *Manson v. Brathwaite*, 432 U.S. 98 (1977), this Court was presented with the "issue as to whether the Due Process Clause of the Fourteenth Amendment compels the exclusion, in a state criminal trial, apart from any consideration of reliability [in this case], of pretrial identification evidence obtained by a police procedure that was both suggestive and unnecessary." 432 U.S. at 99. The defendant argued that "identification evidence is so convincing to the jury that sweeping exclusionary rules are required. Fairness of the trial is threatened by suggestive confrontation evidence, and thus, it is said, an exclusionary rule has an established constitutional predicate." *Id.* At 111. The Court rejected a *per se* rule, stating that such a rule "goes too far since its application automatically and peremptorily, and without consideration of alleviating factors, keeps evidence from the jury that is reliable and relevant." *Id.* at 112. Certainly, inflexible rules of exclusion that may frustrate rather than promote justice have not been viewed recently by this Court with unlimited enthusiasm." *Id.* At 113. "It is part of our adversary system that we accept at trial much evidence that has strong elements of untrustworthiness--an obvious example being the testimony of witnesses with a bias." *Id.* At 113, n. 14.

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The Department of Justice continues to support the use of polygraph examinations as an "investigatory tool" while "oppos[ing] all attempts by defense counsel to admit polygraph evidence or to have an examiner appointed by the court to conduct a polygraph test." Government attorneys are instructed to "refrain" from seeking admission of favorable examinations, yet such attorneys are free to offer any voluntary admissions or confessions obtained by use of this polygraph. Department of Justice Policy 9-13.310. Mil.R.Evid.707 also allows admission of any otherwise admissible statements or confessions obtained in the course of a polygraph examination against an accused.

In *Barefoot v. Estelle*, 463 U.S. 880 (1983), this Court was presented with an issue involving the admissibility of psychiatric testimony during the sentencing phase of a trial, where the psychiatrist was allowed to provide his "expert" opinion about the "future dangerousness" of the defendant. The defendant argued that admission of psychiatric testimony regarding future dangerousness of individuals was so inherently unreliable that its admission against a defendant was unconstitutional.

This Court rejected the defendant's argument:

> Acceptance of petitioner's position that expert testimony about future dangerous is far too unreliable to be admissible would immediately call into question those other contexts in which predictions of future behavior are constantly made. ...
>
> In the second place, the rules of evidence generally extant at the federal and state levels anticipate that relevant, unprivileged evidence should be admitted and its weight left to the factfinder, who would have the benefit of cross-examination and contrary evidence by the opposing party. Psychiatric testimony predicting dangerousness may be countered not only as erroneous in a particular case but also as generally so unreliable that it should be ignored. ...
>
> ... Indeed, as this case and others indicate, there are those doctors who are quite willing to testify at the sentencing hearing, who think, and will say, that they know what they are talking about, and who expressly disagree with the Association's point of view [that such testimony is unreliable]. ... If they are so obviously wrong and should be discredited, there should be no insuperable problem in doing so. ... Neither petitioner nor the Association suggests that psychiatrists are always wrong with respect to future dangerousness, only most of the time. Yet the submission is that this category of testimony should be excised entirely from all trials. We are unconvinced
> ...

Id. At 898-899.[30]

The concern that evidence may be unreliable in certain situations does not warrant a per se ban on admissibility in all situations.

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Respondent agrees inherently unreliable evidence may not be constitutionally required to be admitted. *Rock*, 483 U.S. 44, 62 (1987)(Rehnquist, C.J., White, J., O'Connor, J., Scalia, J., dissenting). "Inherent" is defined in Webster's Dictionary as "involved in the constitution or essential character of something; belonging by nature or settled habit." Webster's Ninth New Collegiate Dictionary 622 (1991). Polygraph evidence, however, is clearly not "inherently" unreliable for what it purports to measure.

B. Polygraph Evidence Does Not Mislead Or Confuse Juries, Nor Do Juries Give Polygraph Evidence Undue Weight

The first three reasons advanced by the drafters of Mil.R.Evid. 707 deal with a belief that juries will rely too much upon polygraph evidence; their province to determine guilt will be invaded, and they will become confused about the issues in the case.[31] These reasons are not supported by studies involving civilian juries. Further, they disregard the President's confidence in the unique ability of court-members to deal with complex issues in courts-martial. Moreover, these concerns undermine confidence in the adversarial criminal justice system, as expressed by this Honorable Court.

(1) Polygraph Evidence Does Not Mislead or Confuse Juries

Scientific studies have shown that juries are not unduly influenced or confused by polygraph evidence. See *United States v. Piccinonna*, 885 F.2d 1529, 1533 n. 14 (11th Cir. 1989)(citing three studies). In one study, 19 lawyers who participated in 220 criminal cases in Wisconsin court rooms between the years 1976 and 1979--when polygraph evidence was admissible in criminal trials pursuant to stipulation between the prosecution and defense--responded to a survey about its impact. *Not one* lawyer felt polygraph testimony disrupted the trial. Only two of the nineteen lawyers believed the jury disregarded other significant evidence (other than the testimony of the defendant) because of the use of the polygraph. R. Peters, *A Survey of Polygraph Evidence in Criminal Trials*, 68 American Bar Association Journal 162 (1982).

Another study analyzed the case of *United States v. Grasso*, a case tried in United States Federal Court, Boston, Massachusetts, in June 1973. In this case, the defendant offered an exculpatory polygraph in support of his alibi defense. This evidence went to the jurors, and the defendant was acquitting. After trial, lawyers interviewed eight of the twelve jurors to determine the effect of the polygraph evidence. The jurors stated they were not unduly influenced by the polygraph evidence. F. Barnett, *How Does a Jury View Polygraph Examination Results*, 2 Polygraph 275 (1973).[32] See also *State v. Porter*, 241 Conn. 57, ___ A.2d ___ (1997) ("[w]e acknowledge, however, that other commentators have specifically asserted that juries will not be overly impressed by such evidence. At present, empirical data regarding the impact of scientific testimony on juries is almost entirely lacking"); *State v. Dean*, 103 Wis. 2d 228, 276, 307 N.W.2d 628, 652 (1981) ("[w]e have no empirical data as to ... the influence of polygraph evidence on the conduct of the trial

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Contrary to the drafters' analysis, a jury does not, of course, determine innocence. It acquits based upon the prosecution not meeting its burden of proof.

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Respondent assumes that, despite overwhelming evidence to the contrary, juries universally decided cases consistent only with the polygraph evidence admitted. As noted, however, the few studies that have been conducted on this issue have shown to the contrary.

Or on the jury verdict"). In the fact of this evidence (or lack thereof), a *per se* rule of evidentiary exclusion based upon a concern that juries in all cases will be "confused" or unduly swayed is not justified.

Additionally, the unique qualifications of military court members, make it unlikely they would be unduly influenced or confused by polygraph evidence, particulary in the respondent's case, with a court panel of military officers.[33] The adoption of other rules of evidence for military courts-martial show that the President has the utmost confidence that court-members will not be confused or misled by expert testimony. In fact, when the drafters wrote Mil.R.Evid. 704 allowing an expert to testify concerning the ultimate issue in a case (contrary to the Federal Rule) they justified this difference based on the sophistication of military court members. "The statutory qualifications for military court members reduce the risk that military court members will be unduly influenced by the presentation of ultimate opinion testimony from psychiatric experts." MCM, United States, 1984, (1995 ed.) App. 22, p. A22-46.

This Honorable Court has also expressed confidence in the ability of juries to separate the wheat from the chaff regarding scientific evidence:

> We conclude by briefly addressing what appear to be two underlying concerns of the parties and *amici* in this case. Respondent expresses apprehension that abandonment of "general acceptance" as the exclusive requirement for admission will result in a "free-for-all" in which befuddled juries are confronted by absurd and irrational pseudoscientific assertions. In this regard respondent seems to us to be overly pessimistic about the capabilities of the jury, and of the adversary system generally. 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.

Daubert, 509 U.S. at 595, quoting *Rock*, 483 U.S. at 61 (1987).

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Article 25(d)(2), 10 U.S.C. 825 states in pertinent part: "When convening a court-martial, the convening authority shall detail as members thereof such members of the armed forces as, in his opinion, are best qualified for the duty by reason of age, education, training, experience, length of service, and judicial temperament." Generally, court-martial panels are comprised of military officers, although enlisted personnel may serve at the accused's request. All officers detailed to courts-martial have at least a bachelor's degree, and many have graduate degrees. Almost without exception, enlisted personnel detailed to a panel have a high school degree, and many have more advanced degrees. See *United States v. Curtis*, 44 MJ 106, 171 (1996) (Sullivan, J. concurring) ("The military jury is hard to fool and its intelligence should not be underestimated.")

Finally, approximately 30 jurisdictions in the United States (22 states plus 8 federal circuits) allow for the admission of polygraph evidence by stipulation or otherwise.[34] Petitioner provides no direct evidence that the admission of polygraph results in those jurisdictions has confused or misled juries.

(2) Polygraph Evidence Does Not Intrude On Traditional Functions Performed By The Jury

The drafters were also concerned that the use of polygraph evidence would preempt the court-members' "traditional responsibility to collectively ascertain the facts and adjudge guilt or innocence. ..." MCM at App. 22, p. A22-48. Petitioner further argues that the admission of polygraph evidence intrudes on the credibility determination of the trier of fact. Brief for Petitioner, at 27. These arguments are not persuasive.

The petitioner specifically argues that juries weigh credibility of witnesses based on first-hand observation of witnesses. Brief for Petitioner, at 28. In our evidentiary system, factfinders are not limited to only *first-hand* observation of witnesses in making credibility determinations. Other evidence which helps the jury assess the credibility of witnesses is routinely admitted, *e.g.*, character for truthfulness/untruthfulness; bias evidence; evidence of prejudice; prior inconsistent statements; prior consistent statements, prior convictions, motive to misrepresent; post-traumatic stress/rape trauma syndrome testimony; and child sexual abuse accommodation syndrome, etc. "[W]e allow the prosecution to introduce expert testimony, which is far less reliable than the polygraph, to bolster the credibility of the state's case in other situations."[35] *State v. Porter*, 241 Conn. 57, ___ A.2d ___ (Conn. 1997) (Berdon, J., dissenting) (citing cases where expert testimony was admitted to show typical behavior patterns of victims of various assaults.)

The Child Sexual Abuse Accommodation Syndrome is one such example. The controversial nature of this syndrome and expert disagreement as to its utility have not precluded the prosecution from using it to assist the fact finder in determining an alleged victim's credibility. *United States v. Suarez*, 35 MJ 374, 376 (CMA 1992), citing Myers, *et al., Expert Testimony in Child Sexual Abuse Litigation*, 68 Neb. L. Rev. 1 (1989); *Hall v. State*, 611 So.2d 915 (Miss. 1992)(expert testified that

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The admissibility of polygraphs in the state and federal jurisdictions will be discussed *infra*.

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Testimony by an expert concerning post-traumatic stress syndrome and rape trauma syndrome testimony is designed to bolster the credibility of the victim. In such a case, the expert is testifying that a rape/child abuse victim frequently exhibits certain symptoms, as does the alleged victim. Such testimony directly makes the alleged victim more "credible" in the eyes of the expert and the jury. See *State v. Steven G.B.*, 204 Wis.2d 108, 552 N.W.2d 896 (Wis. Ct. App. 1996) and cases cited therein.

behavior of alleged victim was common for a sexually abused child). In the face of admission of this evidence, it is arbitrary and unreasonable to limit exculpatory polygraph evidence by an accused after he testifies based upon an argument that such evidence "duplicates" a jury's credibility-assessing function.[36]

Further, polygraph evidence does not provide the ultimate determination of guilt for the jury. The polygraph examiner would only testify that the responses to relevant questions indicated "no deception," not that, in the examiner's opinion, the examinee did not commit the crime alleged. Petitioner also argues that Fed.R.Evid. 704(b) does not allow an expert witness testifying with respect to the mental state or condition of a defendant to opine whether the defendant did or did not have a mental state or condition constituting an element of the crime charged. Brief for Petitioner, at 29. As noted earlier, in the military, experts *are* allowed to provide "ultimate opinion" testimony. *United States v. Benedict*, 27 MJ 253 (CMA 1988). See Mil.R.Evid. 704. Such testimony has not been shown to overwhelm military court-members nor has it usurped their fact-finding role. Further, state courts have admitted expert testimony regarding an expert's belief as to the truth of an allegation. See *State v. Elm*, 201 Wis.2d 452, 549 N.W.2d 471 (Wis.Ct.App. 1996) (expert replied to question as to cause of medical condition "[m]y opinion is that she was molested"); *State v. French*, 233 Mont. 364, 760 P.2d 86 (1988) (noting that a school counselor could offer opinion testimony that a six-year-old victim was telling the truth).

Finally, jurors will not have the mistaken belief that a polygraph expert has independently conducted an investigation and determined the truth for the jury. See, *e.g., United States v. Adkins*, 5 USCMA 492, 18 CMR 116 (1955) (discussing one of the policy reasons for prohibiting a witness from commenting on the truth of the allegations). The jury will understand the circumstances under which the examiner is testifying, having been educated to the risks of polygraph evidence through expert testimony, cross-examination, and cautionary instructions by the judge. See *Barefoot*, 463 U.S. at 901; *Rock*, 483 U.S. at 61. The results of a polygraph provide court members with highly relevant information to help *them* determine the credibility of the witness. The concern that polygraph evidence constitutes "ultimate opinion testimony" is not valid.

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Amici for the Petitioner, Criminal Justice Legal Foundation, argues that in order to admit exculpatory polygraphs, inculpatory polygraphs would also have to be admitted because, if not, a defendant would have nothing to lose. This argument has no basis in fact. Plenty of suspects, who later confess, fail polygraphs in jurisdictions that do not allow polygraphs to be admitted, as noted by Amici. Brief, *Amicus Curiae* of the Criminal Justice Legal Foundation in Support of Petitioner, at 19, 20.

C. The Admission of Polygraph Evidence Is Neither A Waste of Time Nor A Substantial Burden On The Criminal Justice System

Petitioner contends that allowing an accused the opportunity to lay a foundation for the admission of polygraph evidence can result in a substantial waste of time and that polygraph evidence places a burden on the administration of justice that outweighs the probative value of the evidence. Brief for Petitioner, at 29, 30. This argument ignores the fact that highly technical, time consuming, scientific evidence is admitted *against* accuseds every day in our criminal justice system. Today, the Armed Forces routinely prosecute complex urinalysis cases, such as the one in the case *sub judice*. In a litigated urinalysis case, such as respondent's, the prosecution is required to call an expert witness to explain the scientific test results to the fact-finder and lay a proper foundation for their admission. *United States v. Hunt*, 33 MJ 345 (CMA 1991). This is the only evidence required to prove an accused knowingly used drugs. Typically, an accused offers his own expert witness. Such cases are procedurally complex, highly technical, and can be very costly to try. Similarly, the Armed Forces and prosecutors have welcomed with open arms the use of DNA evidence in courts-martial, with all of its "procedural complexities." *United States v. Thomas*, 43 MJ 626 (AF Ct. Crim. App. 1995).

Courts admit testimony of "Drug Recognition Experts" regarding "horizontal gaze nystagmus" (HGN) (purporting to identifying drivers under the influence of drugs or alcohol by noting the rapid involuntary horizontal oscillation of their eyes when attempting to follow a target). See *State v. Klawitter*, 518 N.W.2d 577 (Minn. 1994) (court admitted HGN testimony despite the fact the evidentiary hearing required the testimony of 14 witnesses); *State v. Williams*, 388 A.2d 500 (Me. 1978) ("extensive preliminary hearing" required before admitting spectrography voiceprint analysis).

Studies have also shown that courts admitting polygraph evidence are not unduly burdened by evidentiary hearings. See Peters, *A Survey of Polygraph Evidence in Criminal Trials, supra.* (Survey of 11 cases where experts testified regarding polygraph evidence showed that such testimony consumed, at most, 5 hours of trial time).

Prosecutors and courts cannot be expected to allow "procedural complexities" at trials to perfect the government's case, while denying an accused the opportunity to present a defense. Mil.R.Evid. 707 arbitrarily limits admission of evidence by the defense to a greater degree than by the prosecution. As such, it is an invalid, disproportionate limitation upon a accused's right to present a defense.

Nothing further demonstrates this point than the circumstances of this particular case. The respondent's AFOSI polygraph was taken at the request of the government. Because it was conducted by a certified government polygraph examiner, the examiner's expertise and the reliability of his technique were not at issue. Therefore, the admission of polygraph evidence in this case would not have wasted the court's time or burdened the military justice system.

D. There Is No Widespread Judicial Support For A *Per Se* Prohibition On Polygraph Admissibility

Petitioner argues that "the general rule in most States is that the results of polygraph examinations are inadmissible in criminal trials, primarily because of the lack of adequate scientific support for their reliability." Petitioner further argues that "no court of appeals, however, has concluded that polygraph testing is scientifically valid or that the results of a polygraph test were reliable enough to be admitted into evidence." Brief for Petitioner, at 31, 34. *Amici* argue that "the majority of States have an analogous [to Mil.R.Evid. 707] exclusion of polygraph evidence [rule]." Brief for the State of Connecticut and 27 States as Amici Curiae in Support of Petitioner, at 4. A careful review of these states' cases, however, demonstrates that there is no widespread support for a *per se* polygraph exclusion rule.

In the federal system, eight jurisdictions currently allow the results of a polygraph to be admitted, under certain circumstances, if a proper foundation is laid. See *United States v. Lynn*, 856 F.2d 430 (1st Cir. 1988) (judge's discretion); *United States v. Kwong*, 69 F.3d 663, 667-669 (2d Cir. 1995) (judge's discretion); cert. denied. 116 S.Ct. 1343 (1996); *United States v. Posado*, 57 F.3d 428 (5th Cir. 1996) (judge's discretion); *United States v. Sherlin*, 67 F.3d 1208, 1216, 1217 (6th Cir. 1995) (unilateral polygraphs not admissible, judges discretion); *United States v. Olson*, 978 F.2d 1472 (7th Cir. 1992) (judge's discretion); *Anderson v. United States*, 788 F.2d 517, 519 n.1 (8th Cir. 1986) (by stipulation); *United States v. Williams*, 95 F.3d 723 (8th Cir. 1996) (judge's discretion); *United States v. Cordoba*, 104 F.3d 225, 227-228 (9th Cir. 1997) (judge's discretion); *United States v. Picinnona*, 885 F.2d at 1529 (11th Cir. 1989). The remaining four jurisdictions generally do not admit polygraph evidence. The Tenth Circuit seems to apply an abuse of discretion standard and has allowed polygraph results to be admitted only in limited circumstances. See *Palmer v. Monticello*, 31 F.3d 1499 (10th Cir. 1994). The D.C. Circuit excludes the results of polygraph based on its 70-year-old *Frye* holding. *United States v. Skeens*, 494 F.2d 1050 (D.C.Cir. 1974). In 1991, the Fourth Circuit noted the serious constitutional concerns involving a *per se* rule of inadmissibility of polygraph evidence, when offered by an accused, but left issue unresolved. *United States v. A & S Council Oil Co*, 947 F.2d 1128, 1134 n.4 (4th Cir. 1991). Finally, the Third Circuit has not directly addressed the question, but seems to allow polygraph evidence in rebuttal. *United States v. Johnson*, 816 F.2d 918 (3rd Cir. 1987) (evidence concerning polygraph examination may be introduced to rebut assertion of coerced confession).

Twenty-two states allow polygraph evidence to be admitted in their jurisdictions in one form or another. See Brief for the State of Connecticut and 27 States as Amici Curiae in Support of Petitioner, at 5, n. 1. Twenty-seven states plus the District of Columbia currently do not allow for the admission of polygraph evidence in criminal proceedings. *Ibid.*, at 4, n.1.[37] Vermont has not

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Eleven of the State's Attorney General who support the amicus brief on behalf of the petitioner do

spoken on the subject. However, in *State v. Hamlin*, 146 Vt. 97, 109, 499 A.2d 45, 54 (1985), the State agreed that the admission of polygraph evidence was within the discretion of the trial judge.

The states that exclude polygraph evidence can be divided into two general categories. The majority of these states apply the *Frye* general acceptance test.[38] Implicit in excluding polygraph evidence under the *Frye* test is the understanding that in any particular case, a party can attempt to show that polygraph evidence has been generally accepted and is admissible. In fact, studies indicate that the relevant scientific community *does* very substantially, if not even "generally," accept polygraph evidence as helpful. See McCall, *Misconceptions and Reevaluation--Polygraph Admissibility After Rock and Daubert*, U. Ill. L. Rev. 420 (1996) (1982 and 1992 studies show that 60% and 90% respectively, of psychophysiologists believed the modern polygraph technique was useful when considered with other evidence). Therefore, states applying the *Frye* test, even with their reluctance to admit polygraph evidence, do not go as far as Mil.R.Evid. 707, which prevents an accused from even *attempting* to lay the foundation for his exculpatory polygraph, taken under circumstance assuring its reliability.

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not have *per se* rules in their states against laying a foundation for the admission of polygraph evidence analogous to Mil.R.Evid. 707. See *Wingfield v. State*, 303 Ark. 291, 796 S.W.2d 574 (1990); *People v. Fudge*, 7 Cal. 4th 1075, 875 P.2d 36 (1994); *Holcomb v. State*, 268 Ark. 138, 594 S.W.2d 22 (1980); *Melvin v. State*, 606 A.2d 69 (Del. 1992); *Cassamassima v. State*, 657 So.2d 906 (Fla. Dist. Ct. App. 1995); *Forehand v. State*, 477 S.E.2d (Ga. 1996); *Sanchez v. State*, 675 N.E.2d 306 (Ind. 1996); *State v. Weber*, 260 Kan. 263, 918 P.2d 609 (!996); *State v. Cantanese*, 368 So.2d 975 (La. 1979) (admissible in post-trial proceedings); *Dominques v. State*, 9127 P.2d 1364 (Nev. 1996); *State v. Wright*, 471 S.E.2d 700 (S.C. 1996); *State v. Renfro*, 96 Wash.2d 902, 639 P.2d 737, cert.denied, 459 U.S. 842 (1982). *Amici* imply that Mississippi does not have a *per se* bar to the admission of polygraph results at trial. Brief of the State of Connecticut and 27 States, at 5, n.1. This is incorrect, as it does. Mississippi, however, does allow evidence that a witness was *willing* to take a polygraph (but not the results) to be admitted in order to rehabilitate an impeached witness. *Connor v. State*, 632 So.2d 1239 (Miss. 1993). Since Mil.R.Evid. 707 does not even allow polygraphs to be mentioned for that purpose, respondent will count Mississippi among those jurisdictions that have polygraph rules contrary to Mil.R.Evid. 707.

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See *e.g.*, *Dowd v. Calabrese*, 585 F.Supp. 430 (D.D.C. 1984) (defendants offering polygraph results bear burden of showing that the conditions which led to judicial rejection of polygraphs under *Frye* no longer exist); *People v. Angelo*, 88 N.Y.2d 217, 666 N.E.2d 1333 (1996) (must show general scientific acceptance of test); *State v. Hamlin*, 146 Vt. 97, 499 A.2d 45 (1985) (must show acceptance in scientific community).

The remaining states hold that polygraph evidence is *per se* inadmissible because they believe it to be unreliable, too prejudicial, or an undue burden on the judicial system.[39] Courts that exclude polygraph evidence based on its unreliability, however, improperly require near perfect accuracy rates for polygraph tests, something that is not required for other evidence.[40] See *Rock*, 483 U.S. at 60; *Barefoot*, 463 U.S. at 898; *Manson*, 432 U.S. at 13. This requirement ignores the fact that DNA evidence, handwriting analysis, eyewitness testimony, and other types of evidence may be very unreliable in a particular case, but are nonetheless admissible. *State v. Sims*, 52 Ohio Misc. 31, 47, 369 N.E.2d 24, 34 (1977); see *Quaker City Hide Company and Edward E. Goldberg & Sons, Inc. v. Atlantic Richfield Company*, 10 Phila. 1, 1983 Phila. Cty. Rptr. LEXIS 2 (Pa. Comm. Pleas Ct. Phila. Co. 1983), J. Widacki & F. Horvath, *supra.*

Further, as previously discussed in Section IIA, *supra*, numerous studies have found polygraph evidence to be very accurate. Federal and local governments, including prosecutors, rely on polygraphs to make critical decisions every day. The Department of Defense alone conducted over 370,000 polygraph examinations between the years 1981 and 1996. Fiscal Years 1986-1996, DoD Polygraph Program *Annual Polygraph Report to Congress*, Office of the Assistant Secretary of Defense (OASD) for Command, Control, Communications, and Intelligence (C3I); *Quaker Hide Company*, *supra* (noting polygraphs are widely used with confidence by the military, federal, state, and local law enforcement agencies, and other institutions all over the country); *Paxton v. State*, 867 P.2d 1309, 1323 (Okla. 1994) (charge was dismissed "to best meet the end of justice. ... Defendant cleared by polygraph test"); *State v. Steven G.B.*, 204 Wis.2d 108, 552 N.W.2d 897 (1996) (Sundby, J., concurring) (noting district attorneys use polygraph evidence to make charging decisions); *People v. McCormick*, 859 P.2d 846 (Colo. 1993) (prosecutors require that agreements to take polygraphs be included in plea agreements in order to "unequivocally demonstrate" that a defendant is truthful).

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See, *e.g.*, *State v. Porter*, 241 Conn. 57, ___ A.2d ___ (Conn. 1997) (always too prejudicial); *Morton v. Commonwealth*, 817 S.W.2d 218 (Ky. 1991); *State v. Opsahl*, 513 N.W.2d 249 (Minn. 1990). But see *State v. Schaeffer*, 457 N.W.2d 194 (Minn. 1990); *State v. Staat*, 811 P.2d 1261 (Mont. 1991) (unreliable); *State v. Ober*, 493 A.2d 493 (N.J. 1985) (*per se* unreliable and jury will rely on polygraphs too much); *Paxton v. State*, 867 P.2d 1309 (Okla. 1994) (unreliable); *State v. Campbell*, 904 S.W.2d 608 (Tenn. Ct. App. 1995) (inherently unreliable); *State v. Beard*, 461 S.E.2d 486 (W.Va. 1995) (unreliable, reviewed *Daubert*); *State v. Dean*, 103 Wis.2d 228, 307 N.E.2d 628 (Wis. 1981) (burden on judicial system. Court finds polygraph evidence, however, has a "degree of validity and reliability"); *Robinson v. Commonwealth*, 231 Va. 142, 341 S.E.2d 159 (1986) (unreliable); *In re Odell*, 672 A.2d 457 (R.I. 1996) (rule based on *Frye*, but also inadmissible under *Daubert* because not reliable).

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"Critics of polygraph evidence seem to forget that no evidence can be said to be one hundred percent accurate." J. Canham, *Military Rule of Evidence 707: A Bright Line Rule That Needs to be Dimmed*, 140 Mil. L. Rev. 65 (1993).

Finally, numerous state courts have found polygraph evidence to be reliable. See *Commonwealth v. Mendes*, 547 N.E.2d at 36 (trial court found polygraph evidence valid); *State v. Porter*, 241 Conn. 57, ___ A.2d ___ (polygraph evidence has enough demonstrated validity to pass *Daubert* test). There is no widespread judicial support for a *per se* prohibition on polygraph evidence and even among those states that prohibit the introduction of polygraph evidence, no consensus exists justifying such a ban.

E. The Experience Of New Mexico With Its Open Polygraph Admissibility, Rule Refutes The Reasons Advanced For The Promulgation of Military Rule of Evidence 707

In *State v. Dorsey*, 88 N.M. 184, 539 P.2d 204 (N.M. 1975), the Supreme Court of New Mexico ruled that polygraph evidence would thereafter be admissible in New Mexico without the requirement of a prior stipulation between the parties. The Court found that its previous stipulation requirement, created because of concerns about the reliability of polygraphs, was "mechanistic in nature," "inconsistent with the concept of due process," and "[r]epugnant to the announced purpose and construction of the New Mexico Rules of Evidence." These rules shall be construed to secure fairness in administration *** and promotion of growth and development of the law of evidence ..." *Id.* at 205. Cf. Mil.R Evid. 102, Fed.R.Evid. 102.

In 1983, The Supreme Court of New Mexico promulgated Rule of Evidence 11-707, which established procedural requirements for the admission of polygraph evidence. N.M. Stat. Ann. § 11-707 (Michie 1993). Among other requirements, the rule requires a party wishing to admit polygraph evidence provide 30 days notice before trial and provide the opposing party with all documents related to the polygraph he or she wishes to admit, including any past polygraphs taken by the examinee. The rule also provides definitions of key polygraph terms, minimum training requirements for polygraph examiners, and procedures that must be complied with during the giving of the examination. N.M. Stat. Ann. § 11-707. The purpose of the rule, other than the obvious benefit of providing uniformity, is to prevent surprise and give the opposing party an opportunity to collect rebuttal evidence. *State v. Baca*, 120 N.M. 383, 388, 902 P.2d 65, 70 (1995). Although the rule establishes requirements before polygraph results are admissible, the Supreme Court of New Mexico has refused to follow a mechanical application of the rule (such as the notice requirement). 902 P.2d at 70.

Concerns about the reliability of polygraphs and its effect upon a jury have been the subject of many studies, both in the laboratory and in the "field." Petitioner has cited to this Court, as has respondent, many of those studies. New Mexico, however, has admitted polygraphs without significant restriction (such as prior stipulation) for the past 22 years. Petitioner cites to no study or case law from New Mexico showing that polygraphs have proven to be inherently unreliable, a burden upon the criminal justice system, confusing to juries, or that they have usurped the jury's fact-finding role. On the contrary, New Mexico's experience directly rebuts the reasons advanced for the creation of Mil.R.Evid. 707.

III. Military Rule of Evidence 707 Is Not Entitled To Deference By This Court

"When we assumed the Soldier, we did not lay aside the Citizen." — George Washington[41]

Petitioner argues that in the context of the military, a service member challenging a rule of evidence has an "extraordinarily weighty" burden in "overcom[ing] the balance struck by Congress" citing *Weiss v. United States*, 510 U.S. 163, 177-178 (1994). Brief for Petitioner, at 14.

Respondent disagrees with this analysis. On the contrary, the burden is on the United States to justify its *per se* evidentiary rule of exclusion: "Wholesale inadmissibility of a defendant's testimony is an arbitrary restriction on the right to testify in the absence of clear evidence by the State repudiating the validity of *all* posthypnosis recollections." *Rock*, 483 U.S. at 61. The standard in *Weiss* does not apply here because the President did not promulgate Mil.R.Evid. 707 out of a concern for "balancing the rights of servicemen against the needs of the military. ..." *Weiss*, 510 U.S. at 177. None of the reasons set forth in the drafter's analysis to Mil.R.Evid. 707 indicates the rule was created out of a concern for the unique nature or structure of the military.

Further, in Mil.R.Evid. 702, which was adopted in the early 1980s, the President *eliminated* what had been a *per se* policy excluding the results of polygraphs at courts-martial.[42] The previous provision stated that "[t]he conclusions based upon or graphically represented by a polygraph test and conclusions based upon, and the statements of the person interviewed made during a drug induced or hypnosis-induced interview are inadmissible evidence."[43] MCM, United States, 1969, Para 142e. The Analysis to Mil.R.Evid. 702 further notes (in regard to polygraphs),

> Clearly, such evidence must be approached with great care. Considerations surrounding the nature of such evidence, any possible prejudicial effect on a fact finder, and the degree of acceptance of such evidence in the Article III courts are factor to consider in determining whether it can in fact "assist the trier of fact."

MCM, United States, 1984, App. 22, p. A22-45. If the President was not concerned about balancing the needs of the service member with the needs of the military when creating a rule of evidence, no special deference to the creation of the rule should be given.

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41 Address to the New York Legislature, 26 June 1775, as cited in *The Columbia Dictionary of Quotations*, 1993.

42 See *United States v, Helton*, 10 MJ 820 (AFCMR 1981).

43 The previous *per se* bar in the military to hypnotically induced testimony of a defendant would today be ruled unconstitutional in light of *Rock*.

Petitioner notes that Article 36 of the Uniform Code of Military Justice, 10 U.S.C. § 836, authorizes the President to proscribe rules of evidence for courts-martial. Brief for Petitioner, at 42. Article 36 allows the President "so far as he considers practicable, [to] apply the principles of law and rules of evidence generally recognized in the trial of criminal cases in the United States district courts." A *per se* rule of inadmissibility regarding polygraph evidence, however, is not a "generally recognized" rule of evidence. As discussed, most of the federal circuits do not have a *per se* rule that does not even allow an accused the opportunity to attempt to lay a foundation for the admission of this exculpatory scientific evidence, or even permit the mention of the word "polygraph." The military justice system stands essentially alone with its draconian polygraph rule.[44]

Petitioner contends that the Court of Appeals' opinion does not reflect consideration that the military is a specialized society separate from civilian society, and argues that the costs associated with offering polygraph evidence are unwarranted and onerous for the military. Brief for Petitioner, at 39-43. This argument fails to recognize the role of the Court of Appeals for the Armed Forces in the military justice system, the reasons articulated by the President for the promulgation of Mil.R.Evid. 707, and the nature of the case launched by the prosecution against the respondent at his court-martial.

The Court of Appeals for the Armed Forces is uniquely qualified to consider the special requirements and concerns of the Armed Forces, a task it has been doing for the past 46 years. The Court was specifically created to safeguard the rights of service members. In creating the UCMJ and the present appellate structure in 1950, Congress increased oversight of the military justice system. As Congressman Philbin from Massachusetts noted about the then named Court of Military Appeals:

> [I]t is entirely disconnected with the Department of Defense or any other military branch, completely removed from any outside influences. It can operate, therefore, as I think every Member of Congress intends it should, as a great, effective, impartial body sitting at the top-most rank of the structure of military justice and insuring as near as it can be insured by any human agency, absolutely fair and unbiased consideration for every accused. Thus, for the first time this Congress will establish, if this provision is written into law, a break in command control over court-martial cases and civilian review of the judicial proceedings and decisions of the military.

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The "arbitrary" standard adopted by the Air Force Court of Criminal Appeals in the case *sub judice* is not the correct test for upholding *per se* rules of evidentiary exclusion. Such a low threshold would allow the President to promulgate just about any evidentiary rule of exclusion, since such rules would not be arbitrary so long as they were based on some assumption supported by other authority, however slight.

95 Cong. Record 5726 (1949). Because of this unique charter, this Honorable Court should give great deference to the Court of Appeals' determination that, in the context of the military criminal justice system, the reasons set forth for the creation of Mil.R.Evid. 707 did not warrant a *per se* ban on the ability of a military accused to lay a foundation for the admission of exculpatory polygraph evidence. See *Middendorf v. Henry*, 524 U.S. 25, 43 (1976).

In 1976, this Court noted that "[t]he introduction of procedural complexities into military trials is a particular burden to the Armed Forces because virtually all the participants, including the defendant and his counsel, are members of the military whose time may be better spent than in possibly protracted disputes over the imposition of discipline." *Id.* at 45-46. This concern is not valid today. With respect to Air Force trial participants, officers are assigned as military judges, circuit defense counsel, and circuit trial counsel whose sole jobs are to try courts-martial throughout the world.

Petitioner's argument does not take into account that the Air Force, in deciding to prosecute service members solely based upon a positive urinalysis test results, has created a very complex and expensive litigation network. In such cases, the prosecution must call an expert witness to explain the test result to the fact-finder and lay a proper foundation for its admission. The complexities are amply demonstrated by a court member challenge issue that occurred during the prosecution's case-in-chief in the respondent's case.[45] One court member described the testimony of the prosecution's drug expert as a "course in forensic toxicology." Additionally, an accused is entitled to his own expert and "a battle of the experts" ensues. Such evidence and testimony can be expensive and time consuming. Thus, an argument that the introduction of "procedural complexities" into military trials is a burden to the Armed Forces fails here.

Finally, it is particularly unfair to consider the special needs of the military in respondent's case when the government had two alternative ways to check whether he used drugs--the polygraph examination and the urinalysis. Through its rules of evidence, the government only allowed the urinalysis result to be admitted at respondent's court-martial.

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The President of the panel was excused from the case after inappropriately discussing the facts with the base Staff Judge Advocate during a trial recess. Record 203. The President had also seemed incredulous that Airman Scheffer would actually plead not guilty in the face of a positive urinalysis test. Record 201. During questioning of the remaining members about their possible partiality, several members felt that they received a "course in forensic toxicology" after hearing the testimony of the prosecution's drug expert. Record 204.

CONCLUSION

The narrowly tailored holding of the Court of Appeals for the Armed Forces must stand. Admission of polygraph evidence is compelling under the facts of Airman Scheffer's case. The government requested the examination, a government certified examiner conducted the examination, and the government attacked Airman Scheffer's credibility after he testified. Military Rule of Evidence 707 precluded Airman Scheffer from even attempting to lay a foundation for the admission of evidence which was critical to his defense.

As the Court of Military Appeals noted in *Gipson*:

> In our assessment, the state of the polygraph technique is such that, depending on the competence of the examiner, the suitability of the examinee, the nature of the particular testing process employed, and such other factors as may arise, the results of a particular examination may be as good as or better than a good deal of expert and lay evidence that is routinely and uncritically received in criminal trials. Further, it is not clear that such evidence invariably will be so collateral, confusing, time-consuming, prejudicial, etc., as to require exclusion. ... Rather, until the balance of opinion shifts decisively in one direction or the other, the latest developments in support of or in opposition to particular evidence should be marshaled at the trial level.

24 MJ at 253.

Mil.R.Evid. 102 states that the rules of evidence "shall be construed to promote the growth and development of the law of evidence to the end that the truth may be ascertained and proceedings justly determined." Mil.R.Evid. 707 stunts that growth. In 1923, Wigmore wrote "[i]f there is ever devised a psychological test for the valuation of witnesses, the law will run to meet it. ... Whenever the Psychologist is really ready for the Courts, the Courts are ready for him." 2 J. Wigmore, *A Treatise On The Anglo-American System of Evidence In Trials At Common Law* 875 (2d ed. 1923). In this case, polygraph evidence would not have impeded the discovery of truth in a court of law, but promoted it. The law should run to meet it.

WHEREFORE, the decision of the United States Court of Appeals for the Armed Forces should be affirmed.

Respectfully submitted,

CAROL L. HUBBARD
Major, United States Air Force
Counsel for the Respondent

MICHAEL L. MCINTYRE
Major, United States Air Force
Counsel for the Respondent

ROBIN S. WINK
Major, United States Air Force
Appellate Defense Counsel

W. CRAIG MULLEN
Captain, United States Air Force
Counsel of Record

Appellate Defense Division
Air Force Legal Services Agency
112 Luke Avenue, Suite 343
Bolling AFB, DC 20332-8000
(202) 767-1562

August 1997.

In The Supreme Court of the United States

October Term, 1997

No. 96-1133

United States of America, Petitioner

v.

Edward G. Scheffer

On Writ of Certiorari
To the United States Court of Appeals
For the Armed Forces

REPLY BRIEF FOR THE UNITED STATES

1. Respondent's argument that Military Rule of Evidence 707 abridges the Sixth Amendment rests principally on two propositions: (1) that a criminal defendant has a "fundamental right" to lay a foundation for any potentially exculpatory evidence; and (2) that polygraph evidence has achieved sufficient reliability that no institutional rulemaker--President, Congress, or state legislature--may impose a per se ban on such evidence. Those arguments misstate the constitutional requirements for trials and misapply the applicable principles in the context of polygraph evidence.[1]

a. Respondent's assertion of a "fundamental right" to lay a foundation for the introduction of polygraph evidence is incorrect for several reasons. First, this Court has repeatedly looked to whether the rule imposed is "arbitrary or disproportionate to the purposes [it is] designed to serve." *Rock v. Arkansas*, 483 U.S. 44, 56 (1987). As we explained in our opening brief (Gov't Br. 15-17), a per se rule is not more suspect than an individual judge's ruling in a particular case if the societal "interests served by [the] rule justify [its] limitation." *Rock*, 483 U.S. at 56. See also *Michigan v. Lucas*, 500 U.S. 145, 151 (1991). Respondent suggests that every defendant has a constitutional right to "lay a foundation" to present any potentially exculpatory evidence, however generally

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[1] Respondent notes that, in *United States v. Posado*, 57 F.3d 428, 432 (5th Cir. 1995), the United States agreed that a *per se* rule against admitting polygraph evidence was no longer viable after *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993). Respondent believes the United States' position in *Posado* is the correct approach for a constitutional analysis." Resp. Br. 6. *Posado* involved Fed.R.Evid. 702 and the standard to be applied in determining the admissibility of scientific evidence. It did not involve the constitutionality of any rule relating to the admissibility of such evidence.

unreliable it may be and irrespective of the legitimate interests underlying a categorical exclusion of such evidence.[2] Respondent does not, however, cite any lower court decisions (other than the decision below) applying that principle to hold that a defendant has a constitutional right to lay a foundation for the introduction of exculpatory polygraph evidence.[3]

Nor do the cases cited by respondent from this Court support his assertion of a "fundamental right" to "attempt to lay a foundation for the admission of exculpatory scientific evidence at his court-martial, *** and to present that favorable evidence if the proper evidentiary foundation is established," regarding of Rule 707. Resp. Br. 7. See *Taylor v. Illinois*, 484 U.S. 400 (1988); *Rock*, 483 U.S. at 44; *Chambers v. Mississippi*, 410 U.S. 284 (1973); and *Washington v. Texas*, 388 U.S. 14 91967).

In *Taylor*, this Court found no Sixth Amendment violation in a trial judge's exclusion of a defense witness as a discovery sanction for failing to identify the witness in a timely fashion before trial. 484 U.S. at 413-414. And the remaining cases are collectively distinguishable in at least three ways.[4] First, in each the Court considered a restriction on a defendant's ability to introduce testimony of a witness who was present at the scene of the crime and had first-hand knowledge of the facts. See *Rock*, 483 U.S. at 57 (rule prevented defendant "from describing any of the events that occurred on the day of the shooting"); *Chambers*, 410 U.S. at 295 (testimony sought related to inconsistencies in out-of-court statements that another person committed the murder); *Washington*, 388 U.S. at 16 (testimony excluded was from "the only person other than [defendant] who knew exactly who had fired the shotgun and whether [defendant] had at the last minute attempted to prevent the shooting"). Polygraph evidence is quite different, however, because the examiner has no first-hand knowledge of the facts but instead is basing testimony on interferences drawn about the believability of the defendant in an examination after the events charged.

Second, in each case the Court concluded that adequate assurances existed for the reliability of the testimony that had been excluded. See *Rock*, 483 U.S. at 58-61 (hypnotically refreshed testimony sufficiently reliable when used with appropriate procedural safeguards); *Chambers*, 410

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Respondent suggests that, because Military Rule of Evidence 707 does not contain an exception for capital sentencing, it must therefore be unconstitutional for all purposes. See Resp. Br. 7 n.3. Since respondent's case does not implicate any of the issues that would arise in a capital case, this Court need not consider whether a per se rule prohibiting polygraph evidence would be unconstitutional if applied to bar mitigation evidence in a capital sentencing proceeding.

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The cases cited by respondent that have permitted a defendant to lay a foundation for the admission of polygraph results did so by applying the rules of evidence, which are promulgated by legislatures and courts but are not, except in a few circumstances, compelled by the Constitution. See Resp. Br. 37-43.

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In *Chambers* the Court also specifically limited its holding to "the facts and circumstances of [t]his case." 410 U.S. at 303.

U.S. at 300 (out-of-court statements that had been excluded in circumstances that provided considerable assurance of their reliability"); *Washington*, 388 U.S. at 23 (state rule barring testimony of alleged accomplice "leaves him free to testify when he has a great incentive to perjury, and bars his testimony in situations where he has a lesser motive to lie"). For the reasons given in our opening brief (Gov't Br. 18-26) and pages 5-11, *infra*, polygraph evidence lacks similar assurances of reliability and, contrary to respondent's unsupported assertions, there is no specific reasons to think the polygraph administered to respondent produced a reliable and accurate assessment of his truthfulness.

Third, in each case the application of the evidentiary or procedural rule fell disproportionately on the defendant. Thus, in *Chambers* the combination of the rule that parties "vouch" for their witnesses and thus cannot impeach them, when combined with the hearsay rule, had a particularly severe effect on the defendant in that case who was surprised by the in-court change-of-positions by a person called to testify on the defendant's behalf. Similarly, the hypnotically refreshed recollections excluded in *Rock* were those of the defendant--a unique form of evidence for which no substitute is available in a defense case. And in *Washington*, the rule under challenge expressly prohibited accomplices from testifying on behalf of the defendant. Here, a polygraph examination that has an inculpatory result is banned for the same reasons that one with an exculpatory result is excluded.

Ultimately, respondent concedes (Resp. Br. 12) that "an accused's right to present relevant evidence is not absolute," but then asserts that that principle "should not extend to *per se* exclusions of an *entire class* of exculpatory evidence. *** Though evidentiary rules may sometimes exclude relevant, exculpatory evidence, there are limits that prevent the exclusion of entire categories of evidence for all time." *Id.* At 13. Respondent offers no explanation for what those "limits" might be. As we have demonstrated, however, a per se rule like Military Rule of Evidence 707 is constitutional unless it is "arbitrary" and not supported by legitimate justifications. See *Montana v. Egelhoff*, 116 S.Ct. 2013, 2022 (1996) (plurality opinion); *Lucas*, 500 U.S. at 151; *Rock*, 483 U.S. at 56.

b. The legitimate doubts that exist about polygraphy amply support a conclusion that prohibiting testimony based on such examinations is constitutional. Although respondent and his *amici* go to considerable lengths to try to establish that "polygraph evidence is sufficiently reliable in particular cases, and can be very critical to a defendant's case" (Resp. Br. 10), polygraph evidence is inherently unreliable as evidence in a trial.

First, there is no way of knowing whether a polygraph is, in fact, reliable in any given case. Polygraph test results are not replicable. A person found non-deceptive in an examination at one particular point in time might be found deceptive as to the same questions at a different point in time. Respondent and his *amici* do not dispute our contention (Gov't Br. 23) that such factors as amount of sleep, ingestion of coffee and other stimulants, and stress may alter the test results on a given day. The non-replicability of the test is compounded by the subjective nature of the results adduced by the examiner. Later analysis of test results by a person not in the examination room cannot provide sufficient assurance of reliability in a given examination. Regardless of how well trained a particular examiner might be, whether a person "passes" or "fails" the test will depend on what inferences the

examiner draws from the results because there is no common physiological response known to be unique to deception.[5]

Not only is the reliability of polygraphs open to serious doubt because of their subjectivity and non-replicability, an individual's ability to pass a polygraph by using undetectable countermeasures makes polygraphs even more suspect as reliable evidence in a courtroom. See Gov't Br. 23-25. In attempting to downplay the potential for countermeasures to skew the reliability of polygraphs, respondent suggests only that "spontaneous *** countermeasures" have been found ineffective, and cites a study by C. Honts, D. Raskin, and J. Kircher, who are generally known to be advocates of polygraphy. See Resp. Br. 24. That study, however, found that a simple "physical countermeasure (biting the tongue or pressing the toes to the floor) or a mental countermeasure (counting backward by 7) *** enabled approximately 50% of the [subjects] to defeat the polygraph test." C. Honts *et al.*, *Mental and Physical Countermeasures Reduce the Accuracy of Polygraph Tests*, 79 J. A. Psych. 252, 252 (1994). Those researchers further found that: "effective mental countermeasures *** are virtually undetectable instrumentally" (*id.* At 253); a person who trained in countermeasures for "no more than 30 min[utes]" significantly enhanced his ability to defeat the accuracy of a polygraph (*id.* At 257); and their "findings are consistent with prior research demonstrating that physical countermeasures are effective and are difficult to detect" (*ibid.*). That study was conducted in laboratory conditions, and the authors note that "it is unclear how countermeasures can be studied systematically in the field because successful use of countermeasures would be nearly impossible to identify in the context of most field examinations." *Id.* At 258. For a criminal suspect who would derive the greatest forensic benefit from being found non-deceptive in a polygraph, therefore, even respondent's source establishes that efforts to fool the polygrapher will succeed a significant percentage of the time.[6] It is not arbitrary to impose an evidentiary limitation on a form of evidence so readily susceptible to manipulation by persons with a strong self-interest in doing so.

Finally, even if it is true that "leading practitioners in the field of polygraph[y] fiercely support its use, utility and reliability" (Resp. Br. 17), that support does not translate into a belief among

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Respondent's observation (Resp. Br. 25) that government polygraph examiners are well trained is essentially irrelevant to the constitutional analysis of whether all defendants have a Sixth Amendment right to lay a foundation for the admission of exculpatory polygraph evidence. The government examiners are trained for the investigative purpose for which polygraphs are used by the Federal Government, and not to produce evidence or testimony designed to meet the standards of reliability that govern the admissibility of evidence in a criminal trial. As we have noted (Gov't Br. 23-24), the overwhelming majority of polygraphers in the United States have not been trained by the Federal Government, and are not required by any national accrediting board to meet any uniform national standards before becoming polygraphers.

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Respondent's fallback position is that "[a]ny possible problem with countermeasures in a given test is best explored through the time-honored mechanism of cross-examination." Resp. Br. 24. That response, however, begs the question of why polygraph results are needed at all at trial, if a defendant can testify in his own defense and successfully withstand cross-examination.

scientists and polygraphers that polygraph evidence is sufficiently reliable to be admissible as evidence in a court of law or court-martial. Even respondent's citations support our position that polygraphy is used most effectively as an investigative tool. *Ibid.* As we explain in our opening brief (Gov't Br. 34 n. 17), the Federal Government's use of polygraphy as an investigative method, however, does not mean that polygraph results are entitled to admissibility. An important distinction exists between a tool that may facilitate the obtaining of a confession or other information in an investigation and a technique whose reliability is sufficiently questioned that it should not be admitted into evidence.[7] In the most recent survey of professional polygraphers, less than 30 percent of the members of the American Polygraphy Association and the Society for Psychophysiological Research would "advocate that courts admit into evidence the outcome of control question polygraph tests, that is, permit the polygraph examiner to testify before a jury that in his/her opinion, either defendant was [deceptive or truthful] when denying guilt." W. Iacono & D.Lykken, *The Validity of the Lie Detector: Two Surveys of Scientific Opinion*, 82 J. Applied Psych. 426, 430 (1997). And less than 36 percent of the respondents agreed that the control-question technique "is based on scientifically sound psychological principles or theory." *Ibid.*

Respondent argues (Resp. Br. 19-23) that various studies have ostensibly established the reliability of polygraph. As we noted in our opening brief (Gov't Br. 18-21), polygraphy is a polarized field of inquiry that has its fervent proponents and skeptics. But no one can ever be satisfied that the behavioral analysis inherent in polygraphy is correct, because there is no objectively verifiable method of determining the accuracy of a polygraph examination. Laboratory studies cannot replicate the actual conditions--fear, concern, stress--that are present when a person is polygraphed while under suspicion for having committed an offense. Field studies rely on other evidence of guilt and have the tendency to overstate the efficacy of polygraphs because a finding of deception will result in further interrogation, which produces additional (often inculpatory) information, whereas a finding of non-deception will often result in no additional interrogation. Accordingly, the studies on which respondent and his *amici* rely have been criticized on any number of different grounds, including insufficient sample size, inability to replicate real testing conditions, lack of appropriate controls over relevant information, and other methodological shortcomings. See generally W. Iacono & D. Lykken, "The Scientific Status of Research on Polygraph Techniques: The Case Against

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7 The government employs a wide variety of techniques to attempt to obtain information and solve crimes, even though the information generated and preserved by those methods may be insufficiently reliable to be admissible into evidence. The notes taken by investigators reflecting their impressions about potential witnesses are helpful in the investigative process, for example, but they are inadmissible except in extraordinary circumstances. Similarly, arrest records of persons are very useful to investigators in generating leads and clues, but they are not admissible as proof of guilt of a charged crime. The gut instincts of a trained investigator can be very valuable to the hard work of solving a crime, but those instincts are not probative evidence of wrongdoing by a defendant, so an officer cannot testify to a jury that his instincts cause him to believe the defendant committed the offense. As the Brief *Amicus Curiae* of the Criminal Justice Legal Foundation In Support of Petitioner notes (at 15), polygraph's "ability to generate confessions is the most likely reason for the continued use of the polygraph by law enforcement and security personnel."

Polygraph Tests," in 1 *Modern Scientific Evidence* §§ 14-3.1.1 to 14.3.3.5 (D. Faigman *et al.* eds. 1997).

In that respect, polygraphy is unlike the other types of scientific evidence cited by respondent. There is some readily observable and comprehensible basis for understanding comparisons between samples of DNA, handwriting, and fingerprints. Our scientific understanding of those fields is sufficient to accept that a person will produce the same DNA in different samples, generally form letters in the same handwriting style, and leave fingerprints looking the same. Our understanding of the "science" of polygraph has not led to agreement on any similar universal understandings. Indeed, one of the few points on which both proponents and skeptics of polygraphs agree is that "there is no serious scientific support for" the notion that "certain patterns of physiological response *** are specifically indicative of lying." W. Iacono & D. Lykken, *supra*, § 14-3.1.1 at 583; see also D. Raskin, *The Polygraph in 1986: Scientific, Professional and Legal Issues Surrounding Application and Acceptance of Polygraph Evidence*, 1986 Utah. L. Rev. 29, 31 ("No known physiological response or pattern of responses is unique to deception."). Respondent contends that "[t]he concern that evidence may be unreliable in certain situations does not warrant a per se ban on admissibility in all situations." Resp. Br. 29. Unlike other forms of evidence, however, there is no way of knowing whether any given polygraph result is "reliable."[8] To use this case, for example, it is impossible to replicate respondent's polygraph examination, to ascertain whether he employed countermeasures to evade a finding of deception, to determine whether ingestion of chemicals or the existence of environmental factors influenced the outcome of his polygraph, or to know whether the examiner's evaluation was correct.

c. In addition to the unreliability of polygraphs, respondent also disputes the other reasons given by the President for promulgating Military Rule of Evidence 707. Respondent's counter arguments, however, do not satisfy his high burden of establishing that the justifications underlying the President's decision are invalid.

First, with respect to the intrusion on jury functions by polygraph evidence, respondent contends (Resp. Br. 29-31) that the available information on the effect of polygraph testimony on juries is that juries are not unduly influenced, yet he acknowledges that "empirical data regarding the impact of scientific evidence on juries is almost entirely lacking." *Id.* At 30 (quoting *State v. Porter*, 241 Conn. 57 (1997)). As we noted in our opening brief (Gov't Br. 26-27), courts have frequently expressed the view that polygraphs distort the jury's fact-finding mission.[9]

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Indeed, the rules of evidence generally bar opinions (whether lay or expert) on whether witness was credible on a particular occasion. See Fed.R.Evid. 608(a): *United States v. Azure*, 801 F.2d 336, 339-340 (8th Cir. 1986).

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Respondent maintains (Resp. Br. 34) that polygraph testimony does not usurp the functions of the jury because "[t]he polygraph examiner would only testify that the responses to relevant questions indicated 'no deception,' not that, in the examiner's opinion, the examinee did not commit the crime alleged." Given that the applicable control question will typically ask for a direct answer of whether

Next, with respect to the President's concern that admission of polygraph evidence would lead to unproductive, collateral litigation, respondent contends that "highly technical, time consuming, scientific evidence is admitted *against* accuseds every day in our criminal justice system." Resp. Br. 35. Respondent cites surveys showing that polygraph testimony does not take very much time in trials. Those surveys are belied by the experience of actual cases. See. Gov't Br. 30-31. See also Brief *Amicus Curiae* Connecticut *et al.* In Support of Petitioner 16-17 (describing experience of States). Respondent's contention (Resp. Br. 36) that "the admission of polygraph evidence in this case would not have wasted the court's time or burdened the military justice system" overlooks the collective impact of disputes over polygraph evidence on the judicial system.

Finally, notwithstanding the long recitation of cases by respondent (Resp. Br. 37-38 & n.37), only one State permits polygraph evidence to be admitted over a party's objection--*i.e.*, in the absence of a stipulation between the parties. All other States either have imposed a per se prohibition on the admission of polygraph results or permit such evidence only by stipulation.[10] The cases cited by respondent do not support his assertion that "numerous state courts have found polygraph evidence to be reliable." Resp. Br. 41 (citing *Commonwealth v. Mendes*, 547 N.E.2d 35, 36-37 (Mass. 1989), which reversed Massachusetts' 15-year experiment with polygraph evidence by re-instituting a per se ban; and *State v. Porter*, 694 A.2d 1262, 1282 (Conn. 1997), which upheld the State's per se ban on polygraph evidence while also holding that *Daubert*, rather than *Frye*, was the appropriate standard for the admissibility of scientific evidence under state evidentiary rules.)[11] Similarly, respondent's statement that "[t]here is no widespread judicial support for a *per se* prohibition on polygraph evidence" (Resp. Br. 41) is belief by his acknowledgment that 27 States have per se prohibitions on the admission of polygraph evidence in criminal proceedings (*id.* At 38). Respondent thus relies on the experience in New Mexico, the lone State to permit polygraph evidence over the objection of a party. The experience of that one State does not render its arbitrary for the President to reach a contrary conclusion about the costs of admitting polygraph evidence.

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the subject committed the offense, respondent's distinction is surely one without a difference.

10 Although respondent states that "[t]wenty-two states allow polygraph evidence to be admitted in their jurisdictions in one form or another" (Resp. Br. 38), in all but one of those States (New Mexico), polygraph evidence is admissible only by stipulation of both parties. The Vermont Supreme Court has not addressed the issue. See *State v. Hamlin*, 499 A.2d 45, 53-54 & n. 4 (1985).

11 Likewise, in the post-*Daubert* federal cases cited by respondent (Resp. Br. 37), the court of appeals did not uphold the admissibility of polygraph evidence, but rather held that the standard for determining admissibility is *Daubert*, and not *Frye*. And those courts expressed doubts about whether polygraph evidence would be admissible in view of Federal Rule of Evidence 403. See, *e.g.*, *United States v. Cordoba*, 104 F.3d 225, 227-228 (9th Cir. 1997); *United States v. Williams*, 95 F.3d 723, 729 (8th Cir. 1996), cert.denied., 117 S.Ct.750 (1997); *United States v. Posado*, 57 F.3d 428, 434 (5th Cir. 1995). Thus, although it is true that the federal courts of appeals no longer are invoking *Frye* for a per se rule against the admission of polygraph evidence, the reported decisions establish a great deal of skepticism about the reliability and probative value of polygraphs.

2. If the Court agrees that the Sixth Amendment does not require admission of polygraph evidence, it need not reach our alternative submission that the military rule is entitled to special deference. Respondent makes three attacks on that submission, each of which lacks merit.

First, respondent asserts (Resp. Br. 43) that Military Rule of Evidence 707 is not entitled to special deference because "[n]one of the reasons set forth in the drafters' analysis to Mil.R.Evid. 707 indicates the rule was created out of a concern for the unique nature or structure of the military." No decision of this Court requires the President or Congress to articulate that a particular rule is special to the military before affording its deference. In *Weiss v. United States*, 510 U.S. 163 (1994), for example, this Court did not compel a special justification by Congress for the method of appointing military judges before recognizing the political branches' "plenary control over rights, duties, and responsibilities in the framework of the Military Establishment, including regulations, procedures, and remedies related to military discipline." *Id.* At 177. Nor did the Court require special justification in assessing a First Amendment vagueness challenge to a statute that applied to the military. See *Parker v. Levy*, 417 U.S. 733, 756 (1974) ("For the reasons which differentiate military society from civilian society, we think Congress is permitted to legislate both with greater breadth and with greater flexibility when prescribing the rules by which the former shall be governed than it is when prescribing rules for the latter."). Finally, in upholding against Fifth and Sixth Amendment challenges a rule that denied counsel for military personnel in summary courts-martial, the Court in *Middendorf v. Henry*, 425 U.S. 25 (1976), did not discuss--much less require--any particularized explanation differentiating military and civilian proceedings in the promulgation of that Uniform Code of Military Justice rule. See *id.* At 43-45.

Second, respondent argues that the court of appeals is entitled to deference, and not the President. Resp. Br. 36. As Commander in Chief, however, the President has both a constitutional duty and a statutorily delegated authority to establish rules of evidence in military courts-martial. See U.S. Const. Art. II, § 2, Cl. 1; 10 U.S.C. 836(a). As a creation of Congress, the Court of Appeals for the Armed Forces has neither a constitutional nor a statutory role in the promulgation of those rules. Thus, although that court must discharge its responsibility to rule on constitutional challenges to the rules, its finding of unconstitutionality must be reviewed against the backdrop of the judicial deference that "is at its apogee" (*Weiss*, 510 U.S. at 117) when courts review decisions by the political branches in this area.[12]

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Amicus Navy-Marine Corps Appellate Defense Division posits that "Congress intended the Court of Appeals for the Armed Forces' decisions to have greater weight than the President's in issues of constitutional law that are intertwined with issues of military justice." Amicus Br. 9. There is no support for that assertion. *Amicus* further asserts that this "Court is ill-equipped to perform" an assessment of whether the President's justifications for imposing Mil.R.Evid. 707 "justify the exclusion," because the Court "does not have the knowledge to know if the President is correct because of the intricacies of military discipline and courts-martial." Amicus Br. 10-11. From those premises, *amicus* then contends that this Court "should show deference to the lower court's judgment" because Congress entrusted a military court of appeals with the authority to review courts-martial, having divested the President and his military officers of that role. But although Congress

Finally, respondent argues (Resp. Br. 46) that because "officers are assigned as military judges, circuit defense counsel, and circuit trial counsel whose sole jobs are to try courts-martial throughout the world," there is no continuing merit to this Court's observation two decades ago that "[t]he introduction of procedural complexities into military trials is a particular burden to the Armed Forces because virtually all the participants *** are members of the military whose time may be better spent than in possibly protracted disputes over the imposition of discipline." *Middendorf v. Henry*, 425 U.S. 25, 45-46 (1976); see also Gov't Br. 42-43. But the Nation's defense is better served by applying scarce resources to our external foes than to "possibly protracted disputes" (*ibid.*) over whether a polygraph result should be admitted into evidence in any given disciplinary proceeding. An even greater number of specialized military personnel would likely be needed to handle disciplinary matters if respondent's view is to prevail, since the introduction of polygraphs as evidence brings complications to cases that do not exist with Military Rule of Evidence 707 in effect. See Gov't Br. 29-31, 42-43.

If the Sixth Amendment is not offended when the President and Congress determine that counsel is not required at a summary court-martial, *Middendorf*, 425 U.S. at 48, or that a military defendant's access to compulsory process for obtaining evidence may be regulated by the prosecution, *O'Callahan v. Parker*, 395 U.S. 258, 264 n.4 (1969), there is no constitutional infirmity to a Military Rule of Evidence that even-handedly proscribes the admissibility of polygraph evidence for both the prosecution and defense.

* * * * *

For the foregoing reasons and those stated in our opening brief, the judgment of the court of appeals should be reversed.

Respectfully submitted.

SETH P. WAXMAN
Acting Solicitor General

September 1997

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created a Court of Appeals for the Armed Forces to hear certain appeals from military disciplinary proceedings, Congress specifically delegated to the President the task of promulgating rules of evidence and procedures in courts-martial. 10 U.S.C. 836(a).

In The Supreme Court of the United States

October Term, 1997

United States of America, Petitioner

v.

Edward G. Scheffer, Respondent

On Writ of Certiorari to the
United States Court of Appeals
For the Armed Forces

BRIEF FOR *AMICUS CURIAE* AMERICAN POLYGRAPH ASSOCIATION IN SUPPORT OF RESPONDENT

Gordon L. Vaughan
Vaughan & DeMuro
111 South Tejon, Suite 410
Colorado Springs, CO 80903
(719) 578-5500
***Counsel for* Amicus Curiae**
American Polygraph Association

INTEREST OF *AMICUS CURIAE*

The American Polygraph Association (APA) was established in 1966 and is a professional association of over 1,800 polygraph examiners and academic researchers in the private sector, law enforcement, and government fields. The APA was formed by the merger of the Academy of Scientific Interrogation, the American Academy of Polygraph Examiners, the National Board of Polygraph Examiners, and the International Association of Polygraph Examiners.

The objectives of the APA are that of advancing the use of the polygraph as a science and a profession. APA members have a particular interest in ensuring that this Court is informed about the

modern polygraph instrument and examination procedure, the current research on the validity of polygraph results, and the legal issues implicated by a *per se* exclusion of polygraph evidence.[1]

SUMMARY OF ARGUMENT

I. In order to maintain restrictions on a defendant's Sixth Amendment right to call witnesses in his favor, petitioner must demonstrate that such restriction is not arbitrary or disproportionate to the purpose it is designed to serve. *Rock v. Arkansas*, 483 U.S. 44 (1987), and *Chambers v. Mississippi*, 410 U.S. 284 (1973). In the context of a complete and wholesale exclusion of a class of scientific evidence, petitioner bears the burden of repudiating, by clear evidence, its validity. *Rock* at 61.

Petitioner's attempt to establish an artificially low standard of review for *per se* restrictions on a class of scientific evidence--that the *per se* exclusion of polygraph evidence is constitutional so long as it is reasonable and serves a legitimate interest--is based on the general principle that a defendant's right to present relevant evidence in his defense is not absolute. While Amicus does not dispute this general principle, *Rock* and *Chambers* demonstrate that it is not the controlling principle where a wholesale exclusion of a class of scientific evidence is under review.

II. In the wake of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), a number of federal circuit courts of appeals, recognizing the advances made in polygraph instrumentation, technique, and research, have rejected judicially-imposed *per se* rules against the admissibility of polygraphs. This trend is continuing, and several federal district courts have, applying a *Daubert* analysis, found polygraph evidence admissible.

III. The modern polygraph instrument and testing technique has undergone a great deal of improvement and scientific validity testing. The scientific literature indicates that the control question polygraph technique has high accuracy rates in the average range of 90%; an accuracy rate considerably better than some traditionally accepted types of evidence. Additionally, improvements in the education and training of polygraph examiners have enhanced the reliability of polygraphs.

IV. Research does not support petitioner's argument that a trier of fact would be unduly swayed by polygraph evidence. Further, polygraph evidence is not unique as an indicator of witness credibility and does not impermissibly intrude on the function of the jury.

V. The admission of polygraph evidence will not unreasonably burden the courts. States may establish reasonable guidelines for the admission of polygraph evidence at trial.

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1 Consent letters have been filed with the clerk.

ARGUMENT AND AUTHORITY

I. THE *PER SE* EXCLUSION OF POLYGRAPH EVIDENCE BY MILITARY RULE OF EVIDENCE 707 VIOLATES RESPONDENTS SIXTH AMENDMENT RIGHT TO PRESENT A DEFENSE

In *United States v. Scheffer*, 44 M.J. 442 (C.M.A. 1996), it was held that where the defendant "testified, placed his credibility in issue, and was accused by the prosecution of being a liar," the "*per se* exclusion of polygraph evidence offered by an accused to rebut an attack on his credibility, without giving him an opportunity to lay a foundation under Mil.R.Evid. 702 and *Daubert*, violates his Sixth Amendment right to present a defense." 44 M.J. at 445. The Court of Military Appeals relied, in part, on the framework for examining constitutional challenges to *per se* exclusions of evidence set out in *Rock v. Arkansas*, 483 U.S. 44 (1987),[2] and the general approach of relaxing the traditional barriers to expert opinion testimony discussed in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).[3]

In *Rock*, this Court reversed Arkansas' *per se* exclusion of hypnotically-refreshed testimony that had worked to limit the testimony of the defendant. Finding defendant's right to testify to be a fundamental right, *Id.* at 51-53, this Court observed:

> restrictions of s defendant's right to testify may not be arbitrary or disproportionate to the purposes they are designed to serve. In applying its evidentiary rules a State must evaluate whether the interests served by a rule justify the limitation imposed on the defendant's constitutional right to testify.

Id. At 55-56. In order to demonstrate that a complete and wholesale exclusion of a class of scientific evidence was not arbitrary and disproportionate to the purpose it was designed to serve, this Court placed on the state of Arkansas the burden of repudiating, by clear evidence, the validity of all post-hypnosis recollections. As set forth by the Court:

> A State's legitimate interest in barring unreliable evidence does not extend to *per se* exclusions that may be reliable in an individual case. Wholesale inadmissibility of a defendant's testimony is an arbitrary restriction on the right to testify in the absence of clear evidence by the State repudiating the validity of all post-hypnosis recollections.

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2 *United States v. Scheffer*, 44 M.J. at 445-446.

3 *Id.* At 446.

Id. At 61. As a defendant's right to present evidence in his or her defense is a fundamental right,[4] petitioner's wholesale exclusion of polygraph evidence found in Mil.R.Evid. 707 should be tested against the same standard for arbitrariness and disproportionality, as was hypnotically-refreshed testimony in *Rock*, requiring a clear demonstration from respondent of the unreliability of polygraph evidence in all cases.

Petitioner views *Rock* more narrowly, drawing a distinction between the constitutional right of a defendant to testify on his own behalf as opposed to calling witnesses in his favor. Petitioner's Brief at 35. However, in reaching its conclusion that "Arkansas' *per se* rule excluding all post-hypnosis testimony infringes impermissibly on the right of a defendant to testify on his own behalf," 483 U.S. at 62, this Court did not limit its analysis to the testimony of the defendant. In *Rock*, this Court relied, in part, on its decision in *Chambers v. Mississippi*, 410 U.S. 284 (1973), where a state's hearsay rule was determined to be unconstitutional on the ground that it abridged a defendant's right to present witnesses in his own defense. *Rock*, 483 U.S. at 55. In *Chambers*, this Court held Mississippi to the same burden of demonstrating the unreliability of the proffered testimony of a witness for the defense. Summarizing *Chambers*, this Court noted in *Rock*:

> In the Court's view, the *State in Chambers did not demonstrate that the hearsay testing* in that case, which bore "assurances of trustworthiness" including corroboration by other evidence, *would be unreliable*, and thus the defendant should have been able to introduce the exculpatory testimony.

Rock at 55 (emphasis added).

The court in *United States v. Scheffer* observed that the defendant's testimony in *Rock* and the presentation of polygraph evidence in the present case concerning exclusion of evidence supported the truthfulness of the defendant's testimony and could "perceive no significant constitutional difference between the two" because "[i]n either case, the Sixth Amendment right to present a defense is implicated."[5] 44 M.J. at 446. A similar unwillingness to confine *Rock* to testimony of a criminal defendant was expressed in J. McCall, *Misconceptions and Reevaluations--Polygraph Admissibility After Rock and Daubert*, 1996 U.Ill.L.Rev. 363 (1996) [hereinafter McCall, *Misconceptions and Reevaluation*]. There, the author stated that *Rock* established the basic components in developing a constitutional right to introduce exculpatory evidence in criminal trials (McCall, *Misconceptions and Reevaluation,* at 392) and concluded that "[t]he *Rock* opinion is most

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This Court observed in *Rock* that "the Sixth Amendment, which grants a defendant the right to call 'witnesses in his favor,'" logically includes "the accused's right to call witnesses whose testimony is 'material and favorable to his defense.'" *Rock* at 52 (*citing Washington v. Texas*, 388 U.S. 14, 17-19 (1967), and *United States v. Valenzuela-Bernal*, 458 U.S. 858, 867 (1982)).

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Although not discussed in *Rock*, it is reasonable to presume that *Rock* would also encompass the defendant's right to call an expert regarding the science of hypnotically-refreshed testimony.

logically read to establish a Sixth Amendment right to call exculpatory witnesses whose testimony may be subject to a known, but manageable, risk of inaccuracy." *Id.* At 408.

Petitioner ignores the analysis in *Rock* and *Chambers* and argues that *per se* restrictions on evidence are constitutional merely "if they are reasonable and serve legitimate interests." Petitioner's Brief at 14. Petitioner's attempt to establish an artificially low standard of review is based primarily on the general principle that "a defendant's right to present relevant evidence in his defense is not absolute" and must follow established evidentiary rules. Petitioner's Brief at 15. Amicus does not dispute this general principle but does dispute that it is the controlling principle when the precise issue is a *per se* exclusionary rule.

On this basis, petitioner's citation to *Crane v. Kentucky,* 476 U.S. 683 (1986), and *Montana v. Egelhoff,* ___ U.S. ___, 116 S.Ct. 2013 (1996), is unpersuasive. *Crane* did not address a *per se* exclusion of a class of evidence but addressed a trial court's determination not to allow testimony about the circumstances of a defendant's confession. In that context, though reversing the trial court's decision, this Court reaffirmed those cases granting trial courts wide latitude in making evidentiary decisions. *Egelhoff* addressed a Montana statute that excluded evidence of voluntary intoxication when a defendant's state of mind is at issue. That decision was based on the power of a state to define crimes and defenses, not on the type of *per se* exclusionary rule of evidence addressed in *Rock*, *Chambers*, and the present case.

Accordingly, the issue is not whether petitioner's *per se* exclusion of polygraph evidence is reasonable and serves a legitimate interest but, rather, in the circumstances of this case, whether petitioner has clearly demonstrated that polygraph evidence is unreliable in all cases. Under either test, however, the *per se* exclusion of polygraph evidence under Mil.R.Evid. 707 violates a defendant's Sixth Amendment right to present a defense.

II. THERE IS INCREASING JUDICIAL SUPPORT FOR REMOVAL OF EVIDENTIARY BARRIERS TO POLYGRAPH EVIDENCE

Petitioner claims that the reasonableness of a *per se* exclusionary rule for polygraph evidence is supported in part by "[w]idespread judicial support for a prohibition on polygraph admissibility." Petitioner's Brief at 31. Petitioner's argument fails to acknowledge in an adequate manner the recent decisions of federal circuit courts of appeals, especially those after *Daubert*, which have removed the evidentiary barriers to polygraph evidence.

The stage was set in the circuit courts in a pre-*Daubert* decision, *United States v. Piccinonna*, 885 F.2d 1529 (11th Cir. 1989). There, a criminal conviction was vacated and the case was remanded to reconsider the admissibility of the defendant's polygraph test results. The court of appeals, observing "tremendous advances" in polygraph instrumentation and technique and the progress in the science of polygraphy, reasoned that even under a strict adherence to the traditional standard in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), "it is no longer accurate to state categorically that polygraph testing lacks general acceptance for use in all circumstances." *United States v. Piccinonna*, 885 F.2d at 1532.

This Court's decision in *Daubert* led a number of circuit courts of appeals to join the Eleventh Circuit decision in *Piccinonna* and withdraw the *per se* rule of inadmissibility of polygraph evidence. Other leading circuit court of appeals decisions reflecting this change include *United States v. Kwong*, 69 F.3d 663, 668-69 (2d Cir. 1995), ___ U.S. ___, *cert.denied*, 116 S.Ct. 1343 (1996) ("assuming that polygraph results are admissible under Rule 702," but not reaching that holding because the record was insufficiently developed and the results were properly excluded under Rule 403), *United States v. Posado*, 57 F.3d 428, 432 (5th Cir. 1995) (after *Daubert*, a *per se* rule is "no longer viable"); *United States v. Sherlin*, 67 F.3d 1208, 1216 (6th Cir. 1995) (the decision to exclude polygraph evidence is "within the sound discretion of the trial court," but was properly excluded here under Rule 403); *United States v. Williams*, 95 F.3d 723 (8th Cir. 1996) (discussing the offer of polygraph evidence under a *Daubert* analysis, but holding that the district court did not abuse its discretion in excluding the evidence under Rule 403); and *United States v. Cordoba*, 104 F.3d 225, 228 (9th Cir. 1997) ("we hold that *Daubert* effectively overruled ... [the] per se rule under Rule 702 against admission of unstipulated polygraph evidence").

The rationale for the elimination of judicially-imposed *per se* exclusions of polygraph evidence may have been best explained by the Fifth Circuit Court of Appeals in *Posado*:

> Current research indicates that, when given under controlled conditions, the polygraph technique accurately predicts truth or deception between seventy and ninety percent of the time. Remaining controversy about test accuracy is almost unanimously attributed to variations in the integrity of the testing environment and the qualifications of the examiner. Such variation also exists in many of the disciplines and for much of the scientific evidence we routinely find admissible under Rule 702.

57 F.3d at 434 (footnotes omitted). Therefore, contrary to petitioner's suggestion, there is widespread and increasing support for removing the barriers to polygraph evidence.

Petitioner conceded that "several courts of appeals have retreated from the categorical exclusion of polygraph evidence," but that no court of appeals has concluded that polygraph testing is scientifically valid or that the results of a polygraph test were reliable enough to be admitted into evidence. Petitioner's Brief at 33-34. Petitioner fails to note that it is only recently that the circuit courts of appeals, in the wake of *Daubert*, have begun issuing opinions withdrawing judicially-imposed *per se* rules against polygraph admissibility. In fact, district court decisions are now emerging wherein the trial court judges have performed a *Daubert* analysis and determined that polygraph evidence is admissible in certain circumstances and for certain purposes. *See, e.g., United States v. Galbreth*, 908 F.Supp. 877 (D.N.M. 1995); *United States v. Crumby*, 895 F.Supp. 1354 (D. Ariz. 1995). These carefully considered opinions indicate that district courts are able to perform the "gatekeeper" role which this Court stated in *Daubert* it expected them to perform.

III. THE WEIGHT OF SCIENTIFIC RESEARCH SUPPORTS THE USE AND RELIABILITY OF POLYGRAPHS

A. The Polygraph Instrument and Testing Technique

The polygraph instrument and testing technique used for modern physiological assessment of deception bears little similarity to the instrument and technique assessed by the court in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).[6] As described in *United States v. Galbreth*, 908 F.Supp. 877, 883 (D.N.M. 1995):

> The machine scrutinized in *Frye* was a standard blood pressure type device comprised of a microphone and a cuff that measured the subject's blood pressure. The examiner asked the subject a series of questions during which time the examiner periodically took the subject's blood pressure.

These blood pressure recordings were not continuous and no apparent formal analysis was conducted. C. Honts & B. Quick, *The Polygraph in 1995: Progress in Science and the Law*, 71 N.D.L. Rev. 987, n. 3 (1995) [hereinafter Honts & Quick, *The Polygraph in 1995*].

The modern polygraph instrument "record[s] measures from at least three physiological systems that are controlled by the autonomic nervous system." *Id.* At 989-90. As summarized in *Galbreth*, 908 F.Supp. At 883:

> It measures respiration at two points on the body; on the upper chest, the thoracic respiration, and on the abdomen, the abdominal respiration. Movements of the body associated with breathing are recorded such that the rate and depth of inspiration and expiration can be measured. The polygraph machine also measures skin conductance or galvanic skin response. Electrodes attached to the subject's fingertip or palm of the hand indicate changes in the sweat gland activity in those areas. In addition, the polygraph measures increases in blood pressure and changes in the heart rate. This measurement, known as the cardiovascular measurement, is obtained by placing a standard blood pressure cuff on the subject's upper arm. Finally, the polygraph may also measure, by means of a *plethysmograph*, blood supply changes in the skin which occur as blood vessels in the skin of the finger constrict due to stimulation.

See also, D. Olsen *et al.*, *Recent Developments in Polygraph Technology*, 12 Johns Hopkins Applied Physics Laboratory, Technical Digest 347, 348 (1991) [hereinafter Olsen *et al.*, Recent Developments]; D. Weinstein, *Anatomy and Physiology for the Forensic Psychophysiologist*, Department of Defense Polygraph Institute (1994). There is little controversy in the scientific

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See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 587 (1993) ("[t]he *Frye* test has its origin in a short and citation-free 1923 decision concerning the admissibility of evidence derived from a systolic blood pressure deception test, a crude precursor to the polygraph machine").

literature regarding the accuracy of these recordings of physiological responses. 1 P. Giannelli & E. Imweinkelried, *Scientific Evidence* 217 (2d ed. 1993) [hereinafter Giannelli & Imwinkelried, *Scientific Evidence* 2d].

Stated briefly, the scientific theory underlying modern polygraph assessment of deception is that due either to "cognitive processing or emotional stress," there are recordable and measurable physiological reactions to deceptive responses, such as a response to a question involving the matter under investigation which the subject is unable to inhibit. Olsen *et al.*, *Recent Developments*, at 347. As described in *United States v. Galbreth*, 908 F.Supp. At 884:

> the underlying scientific theory upon which the modern polygraph technique is based is derived from the notion that if a person is threatened or concerned about a stimulus or question, such as a question addressing the matter under investigation, that this concern will express itself in terms of measurable physiological reactions which the subject is unable to inhibit and which can be recorded on a polygraph instrument.

Until approximately 1950, most polygraph testing used the relevant/irrelevant (R/I) question format. McCall, *Misconceptions and Reevaluation*, at 378. Generally, the R/I test compares the relative physiological reactivity of irrelevant questions (questions not related to the matter under investigation) and relevant questions (questions pertaining to the matter under investigation). *Id.* At 410 n. 333). Since its development in 1947,[7] the control question (CQ) format has been the most widely used polygraph technique.[8] Rather than comparing the relative physiological reactivity of relevant and irrelevant questions, the CQ technique compares relative physiological reactivity of deceptive responses to troubling but inconsequential questions (control questions) and relevant questions. The CQ test is summarized as follows:

> In the CQ test, the subject is asked to answer a number of "control" (meaning stressful, but logically distinct from the incident that is the subject of the examination) questions that are intended to provoke anxiety and a false denial. Thus, if the person being examined is suspected of committing a theft on January 10, 1996, a valid control question would be, "During the five year period from January 1, 1991, to December 31, 1995, do you remember stealing anything?" The assumption is that the subject will answer in the negative but suffer some doubts and experience anxiety (and show a strong physiological reaction) in considering the question. Relevant questions relating to the incident under investigation ("Did you steal the wallet of your coworker on January 10, 1996?") are interspersed among the

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J. Reid, *A Revised Questioning Technique in Lie-Detection Tests*, 37 J. Crim. L. & Criminology (1947). The CQ format is, today, a family of related techniques, all derived from Reid's original procedure. J. Matte, *Forensic Psychophysiology Using the Polygraph: Scientific Truth Verification--Lie Detection* 250 (1996) [hereinafter Matte, *Forensic Psychophysiology*].

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The R/I continues to be a popular technique in employee screening situations. P. Minor, *The Relevant-Irrelevant Technique*, in *The Complete Polygraph Handbook* 143 (S. Abrams ed. 1989).

> control questions. An innocent subject will show significantly less physiological reaction when truthfully denying the relevant questions than when denying the control questions.

Id. at 411 n. 339. Irrelevant questions are interspersed as buffers. Olsen *et al., Recent Developments*, at 348.

A standard polygraph examination consists of a pre-test interview, polygraph testing, and analysis of the polygraph data. The pre-test interview serves a variety of functions, including: t "acquaint the subject with the effectiveness of the technique," thus allaying the apprehensions of the truthful subject and stimulating the deceptive subject's concern about the prospect of detection; to "assess the suitability of the subject for testing" and to develop information for formulation of polygraph test questions. Giannelli & Imwinkelried, *Scientific Evidence* 2d at 219 (footnotes omitted). The court in *Galbreth* describes additional functions of the pre-test interview as: introduction of the control question in such a way as to elicit a deceptive response; advance review of questions to avoid surprise; to prevent the need of the subject to analyze the meaning of a question; and to ensure the understanding of any terms used in the questions. *Galbreth*, 908 F.Supp. At 884-885.[9]

The examination is ordinarily conducted in a testing room, devoid of external distractions. S. Abrams, *The Complete Polygraph Handbook* 37 (1989). During the actual examination, a series of tests,[10] asking the same questions but in a different order, are given. This is to ensure that there is consistent physiological response to the same questions, thus reducing the potential that outside stimuli influence test results. *Id.* at 71. Physiological responses are recorded on a moving chart. During the testing, the examiner makes appropriate markings on the chart to indicate where each question is asked and answered and whether there are interfering factors which occurred that may have affected a subject's response to a particular question. *Id.* at 37.

Test interpretation is made by comparing the relative reactivity to control and relevant questions. A numerical scoring system is ordinarily employed which literally calls for measuring and comparing the rise and duration of physiological response. *Id.* at 74. Hence, judgments about the

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Petitioner acknowledges that "[t]here is not doubt that the polygraph can accurately measure certain physiological responses to accusatory questioning and that a correlation appears to exist between a fear of detection and a subject's physiological response." Petitioner's Brief at 21 n.7. Petitioner questions whether these physiological responses might be confused with "responses caused by other emotions." *Id.* As set forth in the text, the pre-test interview is designed to minimize physiological responses due to these other emotions or extrinsic factors. This, along with a properly constructed testing room, the repetition of the test in two or more charts, and the post-test interview further serve to minimize extrinsic factors affecting the test. The success of minimizing these factors is demonstrated in the high accuracy rates reported for polygraph testing in the scientific literature.

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Typically, two to five charts (test repetition) are obtained. Olsen *et al., Recent Developments*, at 347; Giannelli & Imwinkelried, *Scientific Evidence* 2d, at 221.

difference between responses to the relevant and control questions are minimized. In the last ten years, algorithms have been developed which allow computer-assisted chart interpretation. Olsen *et al., Recent Developments*, at 349.

Quality control, in the form of "blind" chart interpretation by a non-examining polygrapher, without knowledge of the original examiner's conclusions, is often employed by private examiners and typically employed by federal agency examiners to ensure agreement in interpretation. *See* Giannelli & Imwinkelried, *Scientific Evidence* 2d, at 223. A polygraph test may be interpreted as no deception indicated (NDI), deception indicated (DI), or inconclusive (IC).

Typically, following a polygraph examination, a post-test interview is conducted in which the results of the polygraph are conveyed to the subject and the subject is interviewed to determine, in part, if there was any external stimuli that may have influenced the test. S. Abrams, *The Complete Polygraph Handbook* 85 (1989).

B. Scientific Study of the Polygraph

In 1983 and 1984, two federally-sponsored reviews of the then available scientific literature regarding polygraph were issued. The first was issued by the Office of Technology Assessment of the U.S. Congress. U.S. Congress, Office of Technology Assessment, *Scientific Validity of Polygraph Testing: A Research Review and Evaluation*, OTA-TM-H-15 (1983) [hereinafter OTA Report]. The second was issued by the U.S. Department of Defense. U.S. Department of Defense, *The Accuracy and Utility of Polygraph Testing* 2 (1984) [hereinafter DoD Report]. Each of these reviews is considered herein along with several subsequent reviews of some of the more recent scientific literature.

In February 1983 the Committee of Government Operations, U.S. House of Representatives, in response to a Presidential National Security Decision Directive (NSDD-84) which authorized increased use of polygraph examinations for security screening of federal employees and civilian contractors with access to highly classified information, formally requested the Office of Technology Assessment of the U.S. Congress to conduct a review of the scientific literature on the validity of polygraph testing.

The OTA determined that there were ten field studies[11] and fourteen analog studies[12] on the validity of the CQ which met their scientific criteria. OTA Report at 97. Summarizing their review, the OTA found that those studies employing the CQ in specific incident criminal investigations found average accuracy rates in field studies of 86.3% correct detection of guilty subjects and 76% correct detection of innocent subjects. *Id.* In analog studies, the accuracy was 63.7% correct detection of guilty subjects and 57.9% correct detection of innocent subjects. *Id.* However, these average accuracy results were skewed down as the OTA chose to identify inconclusive findings as errors on the basis that "an inconclusive is an error in the sense that a guilty or innocent person has not been correctly identified." *Id.* The OTA acknowledged that exclusion of inconclusives would raise the overall accuracy rate.[13] *Id.* The OTA did acknowledge, though critical of its study selection, a then recent "important review" which found an average field study validity of 97.2% and analog study validity of 93.2%. *Id.* at 41, *citing* N. Ansley, *A Review of the Scientific Literature on the Validity, Reliability and Utility of Polygraph Techniques* (Ft. Meade, Md.: National Security Agency (1983)) (found at 125 n.7).

The OTA determined that personnel security screening involved "a different type of polygraph test than specific-incident investigations" and observed that "very little screening research has been conducted" and, for that reason found that the scientific basis for the use of polygraph for *personnel screening* was not established. OTA Report at 99-100. The OTA did determine that

> [t]he preponderance of research evidence does indicate that, when the control question technique is used in specific-incident criminal investigations, the polygraph detects deception at a rate better than chance, but with error rates that could be considered significant.

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"Field studies investigate actual polygraph examinations and constitute the most direct evidence for polygraph test validity." OTA Report at 47 (endnote omitted). The primary problem in field studies is establishing ground truth, *i.e.*, objectively determining the actual truth-tellers so they may be compared with the test outcomes.

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Analog, or laboratory, studies are investigations in which field methods of polygraph examinations are used in simulated situations. OTA Report at 61. Analog studies are typically conducted by having a portion of the subjects commit a mock crime and instructing them to lie about it during the polygraph test. Analog studies are sometimes criticized for their lack of realism. Honts & Quick, *The Polygraph in 1995*, at 994. This problem is reduced by offering incentives associated with the outcome of the test. *Id.* At 994, n. 48.

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While inconclusives may impact the utility of the polygraph, they do not impact accuracy inasmuch as an inconclusive decision would not reflect a bad judgment but, rather, reflects insufficient information to make a judgment. As explained in the DoD Report at 61:

> Even the most accurate test has diminishing utility as the inconclusive rate increases. Fingerprints, for example, have limited utility in investigations despite their extremely high accuracy because only occasionally can identifiable prints be recovered.

Id. at 97. The OTA urged further research and set out priorities for such research. *Id.* at 101-102.

In 1984, at the request of the Deputy Under Secretary of Defense, the Department of Defense issued a report which survey the then existing scientific literature regarding polygraph testing. DoD Report at 2. Observing that there has been more scientific research conducted on polygraph testing "in the last six years than in the previous 60 years," the authors of the DoD Report included a larger group of studies in its review than did the authors of the OTA Report. *Id.* at 58. Field studies reviewed demonstrated 90 to 100 percent accurate classification of guilty subjects and 85 to 100 percent accurate classification of innocent subjects after exclusion of inconclusive results. *Id.* at 37-38. Analog studies were found to

> correctly classify from 75% to 100% of the guilty subjects and from 57% to 100% of the innocent subjects. The mean correct classification rate weighed for number of subjects in the study is 90% for guilty subjects and 80% for innocent subjects.

Id. at 62. In its overview, the DoD observed that while there were some limitations on the scientific research, "the research produces results significantly above chance." *Id.* at 3.

Since the OTA Report and DoD Report, there have been significant technological advances in polygraph instrumentation and an increase in research in the field of physiological detection of deception and better education and training of examiners:

> The period between 1985 and the present has been one of unparalleled advances in the psychophysiological detection of deception testing procedures and processes. ... More sensitive sensors; more efficient transducers; improved means of digitizing and recording physiological data; digitizing analog data at increasingly high sample rates; and algorithms to evaluate physiological data in an unlimited fashion, all represent technical innovations that will enhance the advancement of the new and evolving science of forensic psychophysiology.

W. Yankee, *The Current Status of Research in Forensic Psychophysiology and Its Application in the Psychophysiological Detection of Deception*, 40 J. Forensic Sci. 63, 63 (1995) [hereinafter Yankee, *The Current Status*].

Under the Defense Authorization Act of 1986, the Secretary of Defense was directed to carry out research in the field of physiological detection of deception. Additionally, in 1986, Department of Defense Directive 5210.78 established the Department of Defense Polygraph Institute (DoDPI) as a higher education and research facility. Yankee, *The Current Status*, at 63.

DoDPI's role in polygraph research was described in Matte, *Forensic Psychophysiology*, at 102:

> While not all published research relating to PV examinations during the past fifteen years was conducted by DoDPI, its role as a leading research entity certainly gave impetus to other research facilities and individuals ... to engage in research regarding PV examination test formats, physiological data collection processes, physiological data analysis, diagnostic

procedures and the recognition and identification of countermeasures. Summaries of DoDPI's research are contained in its annual reports to Congress.[14]

In its Annual Report to Congress for Fiscal Year 1990, DoDPI summarized a report prepared by the National Security Agency which reviewed polygraph field studies conducted since 1980. That report, subsequently published in *Polygraph*,[15] considered ten field studies.[16] The ten studies reviewed considered a total of 2,042 examiner decisions, and the results, although excluding inconclusives, assumed that every disagreement was a polygraph error. Average accuracy was 98%. Ansley, *The Validity and Reliability*, at 177. Table 1 of the report sets forth, in part, the following results:

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In Yankee, *The Current Status,* the author cites a number of studies either conducted, administered, or contracted by DoDPI.

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N. Ansley, *The Validity and Reliability of Polygraph Decisions in Real Cases*, 19 Polygraph 169 (1990) [hereinafter Ansley, *The Validity and Reliability*].

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L. Arellano, *The Polygraph Examination of Spanish Speaking Subjects*, 19 Polygraph 155 (1990); R. Edwards, *A Survey: Reliability of Polygraph Examinations Conducted by Virginia Polygraph Examiners*, 10 Polygraph 229 (1981); E. Elaad & E. Schahar, *Polygraph Field Validity*, 14 Polygraph 217 (1985); J. Matte & R. Reuss, *A Field Validation Study of the Quadri-Zone Comparison Technique*, 18 Polygraph 187 (1989); K. Murray, *Movement Recording Chairs: A Necessity?*, 18 Polygraph 15 (1989); C. Patrick & W. Iacono, *Validity and Reliability of the Control Question Polygraph Test: A Scientific Investigation*, 24 Psychophysiology 604 (1987); R. Putnam, *Field Accuracy of Polygraph in the Law Enforcement Environment* (1983), *printed in* 23 Polygraph 250 (1994); D. Raskin *et al., Validity of Control Question Polygraph Tests in Criminal Investigation*, 25 Psychophysiology 474 (1988); J. Widacki, *Analiza Przestanek Diagnozowania W. Badanich Poligraficznych* (*The Analysis of Diagnostic Premises in Polygraph Examinations*), Uniwerstetu Slaskiego, Katowice (text in Polish) (1987); R. Putnam, *Field Accuracy of Polygraph in the Law Evaluation of Detection of Deception in a Riot Case Involving Arson and Murder*, 9 Polygraph 170 (1980).

TABLE 1
Validity of Examiners' Decisions
inconclusives excluded)

Authors/Dates	#	Total # Correct	%
Arellano (1990)	40	40	100%
Edwards (1981)	959	943	98%
Elaad/Schahar (1985)	174	168	97%
Matte/Reuss (1989)	114	114	100%
Murray (1989)	171	168	98%
Patrick/Iacono (1987)	81	78	96%
Putnam (1983)	285	281	99%
Raskin *et al.* (1988)	85	81	95%
Widacki (1982)*	38	35	92%
Yamamura/Miyake (1980)	95	85	89%
TOTALS	2042	1993	98%

*Only the total reported.

Ansley, *The Validity and Reliability*, at 171.

In a review of four CQ field studies, determined by the authors to meet the criteria for meaningful field studies, the average accuracy of field decisions for the CQ was 90.5%.[17] D. Raskin *et al.*: *Polygraph Tests: The Scientific Status of Research on Polygraph Techniques: the Case for*

[17] Those field studies were cited by Raskin *et al.* As follows: C. Honts, *Canadian Police Research Centre Field Validity Study of the Canadian Police College Polygraph Technique* (1994); C. Honts & D. Raskin, *A Field Study of the Validity of the Directed Lie Control Question*, 16 J. Police Sci. & Admin. 56 (1988); C. Patrick & W. Iacono, *Validity of the Control Question Polygraph Test: The Problem of Sampling Bias*, 76 J. Applied Psychol. 229 (1991); Raskin *et al.*, *A Study of the Validity of Polygraph Examinations in Criminal Investigations*, National Institute of Justice (1988); Raskin *et al.*, *Polygraph Tests: The Scientific Status*, at 575, n. 38.

Polygraph Tests, § 14-2.2.1 at 575, in 1 *Modern Scientific Evidence: The Law and Science of Expert Testimony* (D. Faigman *et al.* eds., 1997) [hereinafter Raskin *et al.*, *Polygraph Tests: The Scientific Status*]. The accuracy rose to 95.5% when one study, for which the authors had some criticism, was excluded. *Id.*

Reviewing eleven analog studies, S. Abrams, *The Complete Polygraph Handbook* 190-191 (1989), found that, excluding inconclusives, overall accuracy of the CQ was "in the range of 87 percent."[18] The author observed that "[t]he findings for the CQT in the laboratory, for all of its weaknesses, indicate both high validity and reliability." *Id.* At 191.

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Those studies were cited by Abrams as follows: D. Raskin & R. Hare, *Psychopathy and Detection of Deception in Prison Population,* 15 Psychophysiology 126 (1978); D. Hammond, *The Responding of Normals, Alcoholics, and Psychopaths in a Laboratory Lie-Detection Experiment,* California School of Professional Psychology (1980) (unpublished doctoral dissertation); J. Widacki & F. 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 (1978); L. Rover *et al., Effects of Information and Practice on Detection of Deception,* paper presented at Society for Psychophysiological Research (Madison, Wisconsin, 1979), *printed in* 16 Psychophysiology 197 (1979); C. Honts & R. Hodes, *The Effects of Simple Physical Countermeasures on the Physiological Detection of Deception,* 19 Psychophysiology 564 (1982) (abstract); R. Gatchel *et al., The Effect of Propranolol on Polygraphic Detection of Deception,* University of Texas Health Sciences Center (1983) (unpublished manuscript); G. Barland & D. Raskin, *An Evaluation of Field Techniques in Detection of Deception,* 12 Psychophysiology 321 (1975); J. Podlesny & D. Raskin, *Effectiveness of Techniques and Physiological Measures in the Detection of Deception,* 15 Psychophysiology 344 (1978); J. Kircher & D. Raskin, *Computerized Decision-Making in Physiological Detection of Deception,* 18 Psychophysiology 204 (1981); G. Barland, *A Validation and Reliability Study of Counterintelligence Screening Test,* Security Support Battalion, 902d Military Intelligence Group, Fort George G. Meade, Maryland (1981), S. Abrams, *The Complete Polygraph Handbook* 246-249 (1989).

Raskin *et al., Polygraph Tests: The Scientific Status*, reviewed eight "high quality" analog studies of the CQ which had been reported between 1978 and 1994.[19] The average accuracy of these CQ analog studies correctly classified approximately 90% of the subjects. *Id.* at § 14-2.2.1 at 572.

Petitioner argues that "a highly motivated subject ... may employ countermeasures to obscure an accurate reading of physiological responses." Petitioner's brief at 24-25. Amicus is aware of those studies which indicate some decreased accuracy of the polygraph when subjects are trained to employ countermeasures. *See, e.g.,* C. Honts, *Interpreting Research on Countermeasures and the Physiological Detection of Deception*, 15 J. Police Sci. & Admin. 204 (1987). Although movement by the subject has been considered to be a possible countermeasure, use of an activity monitor placed beneath the subject's chair has been found to successfully detect these movements. S. Abrams & M. Davidson, *Counter-Countermeasures in Polygraph Testing*, 17 Polygraph 16 (188). Computerized analysis of the polygraph also offers a means of significantly reducing the effectiveness of countermeasures. Raskin *et al., Polygraph Tests: The Scientific Status*, § 14-22.2.1 at 577-78.

It is important to note that subjects who are only given information on countermeasures and who are not actually trained in their use have been shown to be unable to significantly affect the accuracy of the polygraph. *Id.;* L. Rovner, *The Accuracy of Physiological Detection of Deception for Subjects with Prior Knowledge*, 15 Polygraph 1 (1986). Moreover, the ability to consciously affect the outcome of a test is not unique to polygraph.[20] Use of countermeasure safeguards is an appropriate subject of inquiry by the trial court in performing its gatekeeping function under *Daubert* and as a legitimate subject of cross-examination during the adversarial process.

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Those analog studies were cited by Raskin *et al.* as follows: A. Ginton *et al., A Method for Evaluating the Use of the Polygraph in a Real-Life Situation*, 67 J. Applied Psychol. 131 (1982); C. Honts *et al., Mental and Physical Countermeasures Reduce the Accuracy of Polygraph Tests*, 79 J. Applied Psychol. 252 (1994); S. Horowitz *et al., The Directed Lie: Standardizing Control questions in the Physiological Detection of Deception* (in press, Psychophysiology); J. Kircher & D. Raskin, *Human versus Computerized Evaluations of Polygraph Data in a Laboratory Setting*, 73 J. Applied Psychol. 291 (1988); J. Podlesny & D. Raskin, *Effectiveness of Techniques and Physiological Measures in the Detection of Deception*, 15 Psychophysiology 344 (1978); J. Podlesny & C. Truslow, *Validity of an Expanded-Issue (Modified General Question) Polygraph Technique in a Simulated Distributed-Crime-Rates Context*, 78 J. Applied Psychol. 788 (1993); D. Raskin & R. Hare, *Psychopathy and Detection of Deception in a Prison Population*, 15 Psychophysiology 126 (1978); L. Rover *et al., Effects of Information and Practice on Detection of Deception*, 16 Psychophysiology 197 (1979). Raskin *et al., Polygraph Tests: The Scientific Status* § 14-2.2.1 at 572 n. 33.

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See, e.g., Rock, 483 U.S. at 61 (recognizing that, notwithstanding procedural safeguards, the "motivations" of a subject of hypnotically-refreshed testimony may not be controlled); L. Binder & L. Parkratz, *Neuropsychological Evidence of a Factitious Memory Complaint*, 9 J. Clinical & Experimental Neuropsychology 167, 167 (1987) ("performance on neuropsychological tests is strongly affected by the motivation of the patient").

Many other criticisms of polygraph accuracy have been rebutted by empirical data. *See* J. Buckley & L. Senese, *The Influence of Race and Gender on Blind Polygraph Chart Analyses*, 20 Polygraph 247 (1991) (no significant difference in polygraph accuracy due to subjects' race or gender); D. Raskin & R. Hare, *Psychopathy and Detection of Deception in a Prison Population*, 15 Psychophysiology 126 (1978) (no significant difference in polygraph accuracy between psychopaths and non-psychopaths); *but see* M. Floch, *Limitations of the Lie Detector*, 40 J. Crim. Law & Criminology 651 (1950); S. Abrams, *The Validity of the Polygraph Technique with Children*, 3 J. Police Sci. & Admin 310 (1975) (children over the age of eleven have high polygraph accuracy with accuracy rates dropping at lower ages); D. Raskin (Ed), *Psychological Methods in Criminal Investigation and Evidence* 253 (1989) (drugs have minimal effect on polygraph outcome); *but see* W. Waid *et al., Meprobamate Reduces Accuracy of Physiological Detection of Deception*, 212 Science 71 (1981).

At least one study indicates that polygraph evidence is more reliable than other evidence traditionally admitted at trial. J. Widacki & F. 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 (1978). There, eighty volunteer subjects were divided into twenty groups of four. In each group, one was assigned to pick up a parcel from one of two doorkeepers of a building. Each of the twenty subjects brought an information sheet and envelope and left them with the doormen. Each subject signed a form in order to receive the package. The doormen knew in advance that participants would be coming. All eighty subjects were fingerprinted and provided handwriting samples. The doormen were each presented a set of four pictures and were required to select the person from each group who had picked up the package. A handwriting expert sought to identify the handwriting of the perpetrator from each group. A fingerprint expert sought to identify the perpetrator by lifting fingerprints from the envelopes and forms left with the doormen. A polygraphist examined each set of four subjects and made a decision as to who was the perpetrator.

Widacki & Horvath found that, excluding inconclusives, the fingerprint expert was correct in 100% of his decisions, the polygrapher was correct in 95% of his decisions, the handwriting expert was correct in 94% of his decisions, and the eyewitness was correct in 64% of his decisions. Interestingly, when inconclusives were included, the percentage of correctly resolved cases changed to 90% polygraph, 85% handwriting, 35% eyewitness, and 20% fingerprint.

C. Education and Training of Polygraph Examiners

Considerable emphasis has been made on improving the education and training of polygraph examiners. Initially, using the Air Force polygraph training program as a model,[21] DoDPI now offers an academic curriculum for federal examiners that

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[21] U.S. Department of Defense Polygraph Program: Report to Congress for Fiscal Year 1986, *reprinted in* 16 Polygraph 53, 63 (1986) (The "Air Force program has served as a model for our expansion and the characteristics which made it worthy of emulation are now standard throughout DoD.")

> provides a basis for a thorough understanding of the scientific psychological, physiological, and psychophysiological concepts, systems, processes, and applications involved; as well as the scientific bases for test development, standardized test administration, research methodology, statistics and ethics.

Yankee, *The Current Status*, at 63. In addition to completing the DoDPI training, candidates for DoD polygraph examiners must be "a graduate of an accredited four-year college or have equivalent experience that demonstrates the ability to master graduate-level academic courses," have two years law enforcement investigative experience, be of high moral character as confirmed by background investigation, and complete a minimum of six months on-the-job internship. U.S. Department of Defense Polygraph Program: Annual Polygraph Report to Congress for Fiscal Year 1996, at 14. Currently, all federal agencies receive their basic polygraph training at DoDPI. *Id.* Further, all federal examiners are required to complete eighty hours of continuing education every two years. *Id.* at 15.

Numerous states now provide for licensing of polygraphers. *See* Giannelli & Imwinkelried, *Scientific Evidence* 2d at 219. Some of these states require continuing education for examiners. *Id.* At least one state, New Mexico, has adopted a rule of evidence requiring stringent minimum qualifications for polygraphers who testify as experts. *See* N.M. Stat. Ann. § 11-707 (B) requiring a minimum of five years experience in administration and interpretation of polygraph test and successful completion of twenty or more hours of continuing education in the field of polygraphy during the twelve-month period immediately prior to the date of subject examination).

Polygraphers who are full members of the APA must have graduated from an APA-accredited polygraph school,[22] completed no less than 200 actual PV examinations in a standardized polygraph technique, hold a current valid license to practice forensic psychophysiology issued by any state or federal agency requiring such license and receive a bachelor's degree from a college or university accredited by a regional accreditation board. *See* Matte, *Forensic Psychophysiology*, at 569-70. The APA maintains standards of practice and ethics for its members, *id.*, and conducts various regional and national seminars on polygraphy for its members. Giannelli & Imwinkelried, *Scientific Evidence* 2d, at 219.[23]

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The APA has, for some time, administered an accreditation program for polygraph schools. Giannelli & Imwinkelried, *Scientific Evidence* 2d, at 218. *See also* American Polygraph Association Manual for Polygraph School Accreditation (1997) (on file with the APA).

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Petitioner acknowledges that the APA and the American Association of Police Polygraphists (AAPP) publish standards for administering polygraphs and observes that many polygraph examiners do not belong to either the APA or AAPP. Petitioner's Brief at 23-24. Amicus initially observes that the polygraph examiner here was a federal examiner and, given the stringent requirements of DoDPI, federal examiners are not subject to this criticism. As to non-federal examiners, Amicus acknowledges that many examiners do not belong to either the APA or AAPP and are not graduates of an accredited polygraph school. However, due to legislation and other changes in the field, "a

IV. THE ADMISSION OF POLYGRAPH EVIDENCE DOES NOT OVERWHELM OR IMPERMISSIBLY INTRUDE ON FUNCTIONS PERFORMED BY THE TRIER OF FACT

Petitioner argues that "[e]ven assuming that polygraph testing had a high degree of reliability," such evidence may potentially encroach upon the proper functioning of the trier of fact as "juries may be unduly swayed by the polygraph expert's opinion" and "such evidence would nonetheless tend to infringe on the jury's role of determining witness credibility." Petitioner's Brief at 26-27. Although stated by petitioner as distinct arguments, both rely on the premise that the trier of fact will be so overwhelmed by polygraph evidence that it will relinquish its role to the polygraph expert. The weight of judicial and scientific authority does not support this premise.

In *United States v. Piccinonna*, the Eleventh Circuit observed that there is "a lack of evidence that juries are unduly swayed by polygraph evidence." 885 F.2d at 1535. In *United States v. Gipson*, 24 M.J. 246 (C.M.A. 1987), the Court of Military Appeals, expressing its "confidence in court-martial panels," noted:

> One fear we do not have is that fact finders will be overwhelmed by polygraph testimony. ... A number of recent studies refute that contention, and their authors conclude that juries generally are capable of evaluating polygraph evidence and giving it due weight.

24 M.J. at 253, n. 11 (*citing* E. Imwinkelried, *The Standard for Admitting Scientific Evidence: A Critique from the Perspective of Juror Psychology*, 100 Mil.L.Rev. 99, 114-15 (1983)). See also, *United States v. Piccinonna*, 885 F.2d at 1533. Indeed, scientific evidence has become part of the modern trial and, as such, jurors are not likely to be overly influence by such evidence. *See Daubert*, 509 U.S. at 595 (arguments for excluding evidence based on fears of "befuddled juries ... confounded by absurd and irrational pseudoscientific assertions ... [are] overly pessimistic about the capabilities of the jury, and of the adversary system generally").

Scientific literature supports the conclusion that jurors are not unduly influenced by polygraph evidence.[24] Commentators generally agree with this assessment. *See, e.g.*, C. Honts & M. Perry,

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large portion of the least competent" examiners have left the field. *See* Raskin *et al., Polygraph Tests: The Scientific Status*, § 14-2.3 at 582. This has had "a salutary effect on the level of competence and practice in the field." *Id.* The fact that there may be unqualified polygraphers does not require wholesale exclusion of the science from the courtroom. Rather, the court may perform its traditional "gatekeeping" role by assessing whether a particular expert witness is sufficiently qualified to offer opinion testimony based on that science and the state may impose reasonable licensing standards for polygraphers.

[24] See E. Carlson *et al, The Effect of Lie Detector Evidence on Jury Deliberations: An Empirical Study*, 5 J. Pol. Sci. & Admin. 148 (1977); A. Markwart & B. Lynch, *The Effect of Polygraph Evidence on Mock Jury Decision-Making*, 7 J. Pol. Sci. & Admin. 324 (1979); R. Peters, *A Survey of Polygraph Evidence in Criminal Trials*, 68 A.B.A. J. 162, 165 (1982).

Polygraph Admissibility: Changes and Challenges, 16 Law & Hum. Behav. 357, 366 (1992) ("[s]tudies tend to show that juries are more inclined not to give extraordinary weight to polygraph evidence"); McCall, *Misconceptions and Reevaluation*, at 376 ("[t]he continued use of the undue deference rationale for the denial position also demeans the ability of modern juries").

Polygraph evidence is, of course, not the only type of evidence which may be offered regarding indicators of witness credibility. In *United States v. Cacy*, 43 M.J. 214, 218 (1995), the court observed that it is usually permissible to allow an expert to testify as to whether "a victim appears rehearsed or coached, or is feigning." Testimony has also been permitted regarding whether "counter-intuitive conduct, such as recanting an accusation, inconsistent statements, or failing to report abuse is not necessarily inconsistent with the truthful accusation." *United States v. Scheffer*, at 446.

Psychiatrists and other clinicians have been permitted to provide expert opinion testimony as to whether a party is malingering or accurately representing his competency, injury, or disability. *See, e.g., United States v. Denny-Shaffer*, 2 F.3d 999, 1023 n.8 (10th Cir. 1993). While such opinions may be based on clinical impressions alone,[25] *Lilles v. Saffle*, 945 F.2d 333 (10th Cir. 1991), such testimony may also be based on certain psychological tests; in particular, internal validity scales of the Minnesota Multiphasic Personality Inventories (MMPI). *See, e.g., United States ex rel. S.E.C. v. Billingsley*, 766 F.2d 1015, 1026 (7th Cir. 1985) (in which experts describe the MMPI as "a test that has numerous scales, designed to elicit malingering or an attempt to ... lie"). As set forth by Faust *et al.*, the use of such internal validity scales of the MMPI are supported by a "*body* of validity research" which supports detection of malingering. 1 D. Faust *et al., Brain Damage Claims: Coping with Neuropsychological Evidence* 429 (1991). That research demonstrates a validity rate comparable to polygraphs.[26]

Polygraph evidence, on the same basis as that evidence discussed above, is not intended to take from the trier of fact issues of guilt, innocence, or credibility. Rather, polygraph evidence, like other relevant scientific evidence, is intended to provide in appropriate cases evidence of whether a witness's physiological responses to certain relevant questions are or are not indicative of deception. Like other relevant scientific evidence, polygraph evidence is simply intended to be a part of the evidence to be assessed through the adversarial process.

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See 1 D. Faust *et al., Brain Damage Claims: Coping with Neuropsychological Evidence* 429 (1991) ("[t]here appears to be a paucity of research which suggests that clinicians have the ability to detect malingering").

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Research has demonstrated the F minus K index as a reasonably accurate discriminator. H. Gough, *The F Minus K Dissimulation Index for the MMPI*, 14 J. Consulting Psych. 408 (1950) (depending on the cut-off applied, correctly identified authentic profiles between 88% to 97.5% of time while corresponding misidentifying simulated profiles 12% to 28% of the time).

V. THE ADMISSION OF POLYGRAPH EVIDENCE DOES NOT CREATE UNNECESSARY COLLATERAL LITIGATION

Both petitioner and Amici Curiae State of Connecticut and 27 States [hereinafter Amici States] speculate that attempts to admit results of polygraph examinations will produce lengthy collateral litigation[27] in the form of evidentiary hearings regarding "the validity of the test, the testing procedures utilized, the qualifications of the examiner, the conditions under which the test was administered, and the content of the questions asked." Amici States Brief at 15-16. *See also* Petitioner's Brief at 29

In addressing this argument, the court in *United States v. Scheffer* observed that it was "unaware of any such flood of polygraph cases" after its decision in *United States v. Gipson* and further observed that "our measure should be the scales of justice, not the cash register." 44 M.J. at 448. Additionally, petitioner and Amici States' fear of lengthy collateral litigation ignores the states' prerogative to reduce the uncertainties of admission of polygraph evidence by establishing reasonable parameters and guidelines for its admission at trial. As observed by this court in *Rock*, a state "would be well within its powers if it established guidelines to aid trial courts in the evaluation of posthypnosis testimony." *Rock* at 61. Reasonable guidelines could also be appropriate implemented as to polygraph evidence. An example of such guidelines is found in New Mexico's rules of evidence. N.M. Stat. Ann. § 11-707;[28] *see also*, McCall, *Misconceptions and Reevaluation*, at 385-388.

Further, trial courts routinely consider expert qualifications, testing procedure, validity, and application of many types of scientific evidence. Polygraph evidence should be considered by the trial courts on the same basis.

CONCLUSION

For the foregoing reasons, the judgment of the United States Court of Appeals for the Armed Forces should be affirmed.

Respectfully Submitted,
GORDON L. VAUGHAN
Counsel for Amicus Curiae
American Polygraph Association

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Amici States observe that a number of states currently follow a *per se* exclusion of polygraph evidence. Similarly, in *Rock*, a number of states maintained a *per se* exclusion of hypnotically-refreshed testimony. *Rock* at 47, n. 14.

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In addition to providing minimum qualifications a polygrapher must meet to give testimony of polygraph results, the New Mexico statute requires, in part: protocol requirements for the examination; recording of the pre-test interview, actual testing, and post-test interview; copies of the recording along with the charts, report, and a list of all polygraph examinations taken by the examinee to the opposing party; and thirty days' notice of intent to offer polygraph evidence at trial.