PLAYING "PIN THE TAIL ON THE TRUTH" IN THE ELEVENTH CIRCUIT: WHY POLYGRAPH EVIDENCE SHOULD BE EXCLUDED IN FEDERAL COURTS

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The most striking contradiction of our civilization is the fundamental reverence for truth which we profess and the thorough-going disregard for it which we practice.[1]

No child's birthday party would be complete without playing the amusing game, "pin the tail on the donkey."[2] Although I stopped playing that game years ago, it seems that federal circuits all over this country are taking jurors, blindfolding them with bad science, spinning them around in a maze of experts, and sending them off in any direction to deliberate and pin a verdict on the truth. Because it is analogous to pinning a tail on a donkey, polygraph evidence has always been a legal Pandora's box, serving only to disable and disrupt the truth finding process. Accordingly, this Comment

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This Comment is dedicated to my family, Al, Dottye, Anthony, and Paul, for without them, none of my accomplishments would have been possible. I want to thank God for all the gifts and talents that He has bestowed upon me. I also am indebted to Professor Roberta Kemp Flowers at Stetson University College of Law and Assistant United States Attorney Stephen Kunz at the United States Attorney's Office for the Middle District of Florida for their sage advice and guidance throughout the writing of this Comment. Special thanks are owed to Professor Stephen M. Everhart at Stetson University College of Law and Assistant United States Attorney Jeffrey Buerstatte at the United States Attorney's Office for the Southern District of Georgia. I also want to thank the prosecutors of the United States Attorney's Office for the Middle District of Florida for their assistance in writing this Comment. Finally, I would like to thank the *Stetson Law Review* members who helped edit this Comment.

1. Laurence J. Peter, *Peter's Quotations: Ideas for Our Time* 473 (William Marrow & Co. 1977) (quoting Vilhjalmur Stefansson). Mr. Stefansson was an explorer and ethnologist of the Canadian Arctic. He also consulted at Dartmouth College and wrote a number of books describing his explorations and discoveries. Brittanica.com Inc., *Brittanica.com* <http://www.britannica.com> (accessed Nov. 30, 2000).

2. The game entails placing a picture on the wall of a donkey without a tail. The player is then blindfolded and spun around several times. Afterward, the player is pointed in the direction of the picture with a paper "tail" in hand. The object of the game is for the player to pin the paper tail on the donkey and to do it as anatomically correctly as possible.

advocates excluding polygraph evidence from federal criminal courtrooms and allowing juries to perform their constitutional duty.

The American legal system requires advocates to apply adversarial techniques to ascertain the truth. Those trained in advocacy, evidence, and persuasion engage in verbal combat before judges and juries, hoping to ferret out the truth. Lawyers, armed with impeachment tools and evidentiary rules, seek the truth for proper dispute resolution. In every courtroom, an oath is administered to testifying witnesses to ensure truthful and accurate testimony.[3] To that end, science has always attempted to develop methods to unearth truth.[4]

The search for the most effective truth-telling device began with draconian water ordeals and developed into the modern polygraph examination.[5] Dean Henry Wigmore once commented, "If ever there is devised a psychological test for the evaluation of witnesses, the law will run to meet it."[6] Until recently, federal courts universally forbade the use of polygraph evidence at trial pursuant to *Frye v. United States*.[7] *Frye* recently lost ground primarily because the standard for scientific admissibility changed in 1993 with *Daubert v. Merrell Dow Pharmaceuticals, Incorporated*.[8] *Daubert* replaced *Frye* and changed the traditional gates that kept certain evidence from the jury.[9] The *Frye* standard and the later *Daubert* standard required evidence to satisfy certain criteria before courts would consider the topic "good science"[10] and therefore acceptable for presentation to a jury. Over the last forty years, the sciences have made significant strides, and polygraph science has been no exception.[11] Yet, despite disagreement among scientists and legal scholars about the reliability of polygraph evidence, the aforemen-

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3. Marilyn J. Berger, John B. Mitchell & Ronald H. Clark, *Trial Advocacy: Planning, Analysis, & Strategy* 1 (Little, Brown & Co. 1989).

4. *See generally Frye v. U.S.*, 293 F. 1013 (D.C. Cir. 1923) (discussing the role of science in the process of seeking truth).

5. Richard H. Underwood, *Truth Verifiers: From the Hot Iron to the Lie Detector*, 84 Ky. L.J. 597, 602 (1995).

6. Robert J. Ferguson, Jr. & Allan L. Miller, *Polygraph for the Defense* 75 (Thomas Publg. Co. 1974).

7. 293 F. 1013 (D.C. Cir. 1923). The test in this case, written before the federal rules of evidence were promulgated, became known as the "*Frye* test." This test also is known as the general acceptance standard. Glen Weissenberger, *Federal Evidence: 2000 Courtroom Manual* 194 (Anderson Publg. Co. 1999). Essentially, specialized or scientific testimony was admissible if the "technique [was] generally accepted as reliable in the relevant scientific community." *Id.* (noting that all federal courts adopted the *Frye* test almost immediately).

8. 509 U.S. 579 (1993).

9. *Infra* nn. 51–199.

10. *See infra* nn. 52–58 (discussing factors required to meet this standard).

11. *Daubert*, 509 U.S. at 597.

tioned advancements prompted several federal circuit courts to admit polygraph evidence at trial for limited purposes.[12]

This Comment examines the traditional reasons for excluding polygraph evidence, explores reasons why polygraph status has changed, analyzes the use of polygraph evidence in light of recent case law, and details why polygraph evidence should be excluded in federal courts.

However, it must be noted that polygraph evidence presents a double-edged sword for defense attorneys. Polygraph evidence may cut through the government's reasonable doubt, because jurors may consider the evidence conclusive of guilt or innocence. Because of this potential pitfall, rarely will polygraph evidence become a substantive issue for courts to decide.[13] As a result, the issue is not litigated heavily.[14] Case law indicates that states treat polygraph

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12. *Infra* n. 22.

13. *U.S. v. Wkly*., 128 F.3d 1198, 1199 (8th Cir. 1997).

14. This is based on the Author's experience in criminal law. The Author interned for two and a half years with Every & Stack, P.A., a criminal defense and probate litigation firm in Daytona Beach, Florida; clerked for eight months with the United States Attorney's Office for the Middle District of Florida, Criminal Division; interned for six months with the Honorable Richard A. Lazzara of the United States District Court for the Middle District of Florida; and worked for six months with the state attorney's office for the Sixth Judicial Circuit in and for Pinellas County, Florida as a certified legal intern.

One such example occurred in *United States v. Grimes*, 142 F.3d 1342 (11th Cir. 1998) (the polygraph issue was not preserved for appeal). There, the defendant was fired from his employment as a maintenance worker for an apartment complex. *Id*. at 1344. After his termination, the defendant planted an explosive package at the complex entrance. *Id*. at 1345. The victim picked up the package and sustained fatal injuries. *Id.* The defendant was convicted in the Middle District of Florida for destroying a building that affects interstate commerce with an explosive device. *Id*. at 1346.

A polygraph examination, conducted at the defense's request, was administered to the defendant concerning his role in the bombing. The defendant indicated that he played no role in the bombing of the Ceder Cove Apartment complex. The polygraphist concluded that Grimes told the truth. The government's expert, using the polygraph chart the defendant claimed vindicated him, concluded that the test indicated the defendant lied during the examination. Nonetheless, the defendant served the government notice of intent to introduce polygraph evidence at trial. U.S. Response in Depo. to Def. Mot. to Declare Results of Polygraph Exam. Admissible & Notice of Def. Intent to Offer Expert Test. at 3, *Grimes*, 142 F.3d 1342.

Before his indictment and the *Daubert* hearing pertaining to polygraph evidence, the defendant made several statements to an undercover law enforcement officer. In one statement, the defendant admitted to committing the bombing and beating the polygraph examination. In addition, the defendant boasted his abilities as a liar and his "technique" to beat polygraph examinations. *Id.*

In fact, the defendant had been convicted several times for crimes involving dishonesty. Coupled with the statements professing an ability to cause inaccurate polygraph results, it was determined that the defendant could not seek to introduce polygraph evidence at trial.

evidence very differently.[15] Because of this disparity, this Comment deals only with the role of polygraph evidence in federal criminal court proceedings. Like most evidentiary matters, the decision to exclude or admit polygraph evidence is not based on case law and precedent, but upon applying the rules of evidence to specific facts before a federal trial court. The simple fact is that polygraph evidence is admissible in the Eleventh Circuit and other federal circuits, and this Comment does not set out to repeat an analysis performed by so many authors on the cases that have permitted this evidence at trial. Rather, this Comment is written to assist those involved in trial work to exclude polygraph evidence from jurors' consideration by exploring polygraph testing specifics and the federal rules of evidence and commingling them to fashion evidentiary arguments.

I. THE POLYGRAPH EXAMINATION

Before engaging in legal analysis or developing the issues, it is crucial for the reader to understand how polygraph testing works. After this is accomplished, this Comment suggests ways to use the federal rules of evidence to exclude polygraph evidence at trial. As with any evidentiary objection, to make these evidentiary arguments effectively to a trial judge, understanding how polygraph tests work is essential. Without such an understanding, an advocate might as well join the jury in playing the aforementioned game of yesteryear. Only with that understanding can an advocate effectively weave the necessary facts with the federal rules of evidence to construct an argument to exclude evidence. Part I explains the basics of polygraph examinations, various polygraph examination types, alleged accuracy of polygraph examination results, and examiner facts. Part II continues with legal analysis. Finally, Part III explores the federal rules of evidence.

A. The Basics

Id.

15. *See State v. Porter*, 698 A.2d 739, 773–774 (Conn. 1997) (illustrating that, while one state may bar certain polygraph evidence absolutely, the same evidence may be admissible in another state, provided that it meets the state's admission standard).

A polygraph examination does not detect lies.[16] The term "lie detector" evolved as press jargon to explain a polygraph examination rudimentarily. In reality, no instruments have been developed to detect lies. Even the most modern polygraph technique seeks to determine when a subject is conveying the whole truth or a partial version of the truth.[17] Because polygraph examinations are not dispositive, results can be used only as the basis for an expert opinion on the examinee's truthfulness during the polygraph examination.[18]

Every polygraphist[19] must be part psychophysiologist. Psychophysiologists study the relationship between human behavior, physiology, and anatomy.[20] Specifically, to understand polygraph results, it is essential that polygraph examiners understand the endocrine, respiratory, nervous, and circulatory systems.[21] Each of these systems reacts when an individual experiences stress or pain.[22] Instrumentation readings are derived from autonomic changes in these systems. From these readings, polygraphists allege that it is possible to determine if the subject is telling the entire truth.[23] Hence, the term "lie detector examination" is inaccurate, because the examination can only detect a subject who is not telling the complete truth.[24]

Administering an effective polygraph examination consists of much more than asking a set of questions. First, the examiner must gather as much data as possible about the examinee and the alleged crime. This data collection involves information about the relevant issue (i.e., details about the crime, employee theft, etc., gathered

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16. Ferguson & Miller, *supra* n. 6, at 7.

17. *Id.* at 9.

18. *Id.* at 9–10.

19. A polygraphist is the examiner who administers a polygraph examination and interprets the results. David E. Nagle, *The Polygraph in the Workplace*, U. Rich. L. Rev. 43, 52 (1983).

20. Stan Abrams, *The Complete Polygraph Handbook* 17 (Lexington Bks. 1989).

21. *Id.* at 18–33.

22. *U.S. v. Piccinonna*, 885 F.2d 1529, 1538 (11th Cir. 1989) (Johnson, J., concurring in part and dissenting in part). Lie detection is based on the following four assumptions:

> (1) that individuals cannot control their physiologies and behavior, (2) that specific emotions can be triggered by specific stimuli, (3) that there are specific relationships between the different aspects of behavior (such as what people say, how they behave, and how they respond physiologically), and (4) that there are no differences among people, so that most people will respond similarly.

Id.

23. Abrams, *supra* n. 20, at 51.

24. *Id*. (noting that, by definition, autonomic reactions cannot be controlled).

from every available source before the test is administered). Further, it is imperative for the examiner to determine the subject's medical condition. For example, the examiner should attempt to determine if the examinee is taking medication. Narcotics obviously affect the human response systems listed above and would, therefore, distort the interpretation of the polygraph results because the machine records responses based on slowed or expedited physiological reactions. Second, the examiner must conduct a pretest interview with the test subject. This allows the examiner to build a rapport with the examinee. Third, this is an opportunity for the examiner to bolster the validity of the polygraph examination to the examinee. Theoretically, this builds confidence in the truthful person that the machine will not mistakenly detect a lie, while creating anxiety in the liar who believes that the falsehoods might be detected. It is important that the examinee believe a polygraph examination is valid and reliable.[25]

After the pretest interview, the examiner goes over the procedure with the examinee. In addition to calming the examinee's fears of the unknown, the pretest interview provides the examinee with questions that will be asked during the polygraph examination. Having the examinee answer the questions before recording physiological responses locks the examinee into certain answers. Changing these answers during the polygraph examination is tantamount to admitting the subject already lied. Because polygraph machines measure reactions to the pressure of answering a question, disclosing the questions in advance should not adversely affect the polygraph machine readouts. This simply provides comfort to the examinee, but does not allow the examinee to "practice" taking a polygraph examination. The examinee does not have sufficient opportunity in this process to relax his or her physiological responses when answering relevant questions.[26]

To administer the polygraph examination, subjects are connected to a machine that is no larger than a briefcase.[27] Examinees wear a blood pressure cuff on the arm, electrodes on the fingers, and

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25. An examination can be rather effective at detecting and recording physiological responses, but not detecting if the examinee is lying or telling the complete truth.

26. *Id*. at 71.

27. Interview with Paul J. Blenk, Former Sheriff's Dep., Dekalb County (Feb. 17, 2000) (record of interview on file with Author). Sergeant Blenk had cause, during his employment, to investigate the cited polygraph machine. *Id*.

pneumograph tubes around the torso.[28] The newest polygraph machines have the finger electrodes.[29] Examiners assign positive or negative numbers to each response based on the length of time between question and answer and the autonomic physiological responses.[30]

Polygraph examinations are structured so that the examiner may record the subject's physiological responses at a "normal moment." Polygraph instruments can record electrodermal, cardio, and respiratory responses. During this "normal moment," the subject is not under any stress theoretically, so those readings present a standard by which the remainder of the test is measured. However, the examinee still is connected to a machine that is recording every physiological response, so it seems paradoxical that a "normal moment" could ever be recorded under such conditions. Throughout the examination, the examiner marks changes in the subject's reactions to answering questions. These readouts are then analyzed, interpreted, and compared to other relevant prior examinations to determine if the subject told the entire truth.[31]

The polygraph examination final stage is the post-test interview. At this point, the examiner confronts the examinee with the test results.[32] If the subject is determined to have told the complete truth, the examiner simply needs to indicate that he or she passed the polygraph examination.[33] If the subject is determined to be untruthful, the examiner is required to confront the subject with the results.[34] Confrontation allows the examiner to determine if the subject failed the test for a reason other than not telling the whole truth.[35]

B. Examination Types

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28. John E. Reid & Fred E. Inbau, *Lie Detectors and Detection* 112 (2d ed., Williams & Wilkins Co. 1977). A pneumograph is "an instrument for recording the thoratic movements or volume change during respiration." *Webster's New Collegiate Dictionary* 878 (G. & C. Merriam Co. 1981).

29. *Supra* n. 17 and accompanying text.

30. *Supra* n. 17 and accompanying text.

31. David T. Lykken, *A Tremor in the Blood: Uses and Abuses of the Lie Detector* 49–52 (2d ed., Perseus Bks. 1998).

32. *Id.* at 85. The American Polygraph Association (APA) requires an examiner to present an examinee with the results. *Id*. See *supra* Part I(C) for a description of the APA.

33. Lykken, *supra* n. 31, at 85.

34. *Id*.

35. *Id.* at 85–86.

Although all polygraph examinations seek to answer the same basic question, there are several techniques that may be used to reach that end and ascertain the subject's truthfulness. Each technique is different and prompts the subject to respond differently.[36]

The oldest technique for ascertaining the subject's truthfulness is the relevant/irrelevant technique. During this testing method, the examiner asks the subject questions that are relevant and irrelevant to the crime. Initially, it was believed that the subject would have the same responses when truthfully answering irrelevant and relevant questions. If the measurable responses were not the same, then it was believed that the subject lied.[37]

Another technique is the concealed or guilty knowledge technique. Although the science behind this technique is similar to other techniques, this examination is difficult to administer. To employ this technique successfully, the examiner must first know every detail of the case. The examiner asks the examinee several questions that are similar to what happened during the crime. Questions include small details about the crime that are incorrect, but emphasized several times. Eventually, the examiner asks the question with all details correct. Theoretically, only the perpetrator knows the exact details of what happened. When all details are presented correctly, the examinee, if he or she is the perpetrator, will recognize the details and have a significant physiological response. This method shocks the examinee into responding.[38]

Finally, the most utilized and endorsed technique for ascertaining the subject's truthfulness is the controlled question technique (CQT). Similar to the relevant/irrelevant technique, the examiner asks questions that relate and do not relate to the examination purpose. However, the examiner will trick the subject into answering falsely or instruct the subject to lie.[39]

The premise underlying the CQT is that an innocent examinee will have a stronger physiological response to false answers to the control questions than to truthful answers to the relevant questions

36. *U.S. v. Gilliard*, 133 F.3d 809, 813 (11th Cir. 1998).
37. *Id.*
38. *Id*.
39. *Id*.

in which he denies wrongdoing and that the reverse will be true for a guilty examinee.[40]

Three methods exist to administer a CQT polygraph examination. They are the probable lie CQT, the directed lie control technique, and the hybrid approach.[41]

In the probable lie method, the examiner poses questions that a subject would have to answer affirmatively if the subject answered truthfully. For example, the examiner may ask, "Have you ever done anything wrong in your life?" This method assumes every subject has done something that he or she believes is wrong. However, most examinees will be too embarrassed to admit that they have done something wrong. If the subject answers "no," then the examiner presumably tricked the examinee into answering the question incorrectly. In effect, the subject lied. The other option is for the examiner to direct the subject to answer the question in the negative. This approach forces the subject to lie. The readings produced during the response will form the basis by which the examiner determines if the subject is lying throughout the remainder of the examination.[42]

The directed lie control method requires the examiner to instruct the examinee to answer a control question falsely. To accomplish the necessary basis for comparison, the examiner must emphasize how important it is that the examinee answer the question exactly as he or she is told. In theory, the subject is so concerned with the directed lie question that he or she produces physiological responses similar to a lie. Hence, the examiner can compare false responses to the control questions with the responses to the relevant questions and determine if the subject told the whole truth.[43]

Finally, the hybrid technique combines probable and directed lie methods. Most examiners perform the hybrid technique. The

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40. *Id.* An examinee will have more measurable responses when forced to lie about involvement with the crime, whereas, the individuals involved in the crime will have less of a reaction, because they participated in the crime. Admitting involvement in the crime should be less stressful for a guilty person than forcing an innocent person to admit involvement. *Id*.

41. *Id*.

42. *Id*. Although an examinee's stress level should decrease because he or she is following the examiner's instructions, this polygraph method assumes that it is very stressful for an individual to admit fictitious involvement in a crime. Therefore, even though the examinee is following the examiner's instructions, the examinee should still have significant physiological reactions when admitting involvement in a crime that the examinee did not commit. *Id*.

43. *Id*. at 814.

examiner asks the subject questions from both methods, but only one set of relevant questions. After grading the responses and reactions, the examiner forms an opinion as to whether the subject was truthful during the examination.[44]

The polygraph examination will produce one of three results. Either the subject will pass the examination, fail the examination, or the results will be inconclusive.[45]

C. The Examiners

In 1966 several polygraphists formed the American Polygraph Association (APA). This voluntary association now boasts a membership of over 2000. The organization approves polygraph schools and recommends certain standards that polygraphists should follow. The organization may sanction or expel members for failure to adhere to ethical codes or recommendations. Each state has a voluntary division, which operates as a branch office for the APA.[46]

II. THE LAW

Now that the reader sufficiently understands polygraph techniques, examiners, and testing procedures, it is appropriate to address the relevant case law that permits polygraph evidence in federal criminal court proceedings. To begin this analysis, it is necessary to examine how scientific evidence comes within the jury's province. Again, this portion of the Comment is not meant to approve or disapprove of the Eleventh Circuit's position. Much like the trial advocate, this Author has to accept that polygraph evidence is admissible, but it is essential for the reader to understand the history of how this evidence became admissible. Overturning the Eleventh Circuit's position does not lie within the case law, but rather rests on United States district courts consistently finding polygraph evidence unreliable. That process begins with the trial advocate. The following is presented to inform the reader of the circuit court's blind acceptance of polygraph evidence and a possible glimpse into the United States Supreme Court's position on this noteworthy issue.

Courts have always been concerned with admitting scientific evidence at trial because of the weight jurors may assign the

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44. Reid & Inbau, *supra* n. 28, at 215–219.
45. *Id*.
46. *Id.*

evidence.[47] To ensure against admitting deficient scientific evidence, advocates must demonstrate that such scientific evidence is not trustworthy enough to be placed before a jury.[48] If the evidence is going to spin jury members around before letting them pin the tail on the truth, we want to at least make sure the evidence will point in the direction of the picture of the donkey. Polygraph evidence has been no exception to this rule.

Beginning in 1923, overcoming the standard outlined in *Frye* required scientific evidence.[49] This standard requires that any scientific evidence presented to a jury be accepted generally in its relevant scientific community.[50] General acceptance in its relevant scientific community meant that the court had to find that scientists studying the same data also believed in the validity of the proffered evidence.[51] Publication in a scientific journal, acceptance in judicial opinions or legal treatises, and testimony demonstrated general acceptance.[52] This rather brief (two page) 1923 circuit court opinion operated as the test for determining admissibility of scientific evidence for all federal courts and most state courts for over seventy years.[53] Not only was this a seminal decision concerning scientific evidence, but this case supplied the springboard that launched per se bans on polygraph evidence all over the country.[54]

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47. *McCormick on Evidence* § 203, 869 (John William Strong et al. eds., 4th ed., West 1992).

48. *Id*.

49. 293 F. at 1014. This case, which came to be known as the "*Frye* standard," specifically dealt with the systolic blood pressure test, a precursor to the modern polygraph examination. *Id.* at 1013–1014.

50. *Id.* at 1014.

> Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made *must be sufficiently established to have gained general acceptance in the particular field in which it belongs*.

Id. (emphasis added).

51. *McCormick on Evidence*, *supra* n. 47, at § 205, 890.

52. *Id*.

53. Charles R. Honts & Bruce D. Quick, *The Polygraph in 1995: Progress in Science and the Law*, 71 N.D. L. Rev. 987, 987 (1995).

54. *Piccinonna*, 885 F.2d at 1531; *see* Mark McCormick, *Scientific Evidence: Defining a New Approach to Admissibility*, 67 Iowa L. Rev. 879, 884 (1982) (reviewing *Frye* and its impact on polygraph evidence).

However in the 1970s and 1980s courts began to note advance ments in polygraph technology.[55] In 1989 the Eleventh Circuit, sitting en banc, became the eighth appellate circuit[56] to allow polygraph evidence at trial.[57] Before engaging in any analysis, the court noted that polygraph evidence has typically been excluded with "little comment."[58] But given that federal agencies, such as the Federal Bureau of Investigation, the Secret Service, and other agencies use polygraph testing, the Eleventh Circuit believed, in error, that the per se ban on admissibility was no longer warranted.[59]

At the outset, the court noted that polygraph evidence was traditionally excluded for three reasons, "1) the unreliability of the polygraph test, 2) the lack of standardization of polygraph procedure, and 3) [an] undue impact on the jury."[60] Rather than address these issues one by one, the court simply indicated that these issues were no longer a concern because of new empirical evidence, scholarly opinion, and court decisions from other circuits.[61] Yet, the court failed to cite or analyze any specific "new empirical evidence."[62] This is problematic because the reliability of this evidence turns not on case law, but on evidence gathered in field studies.[63] Those studies that have been conducted are troublesome at best.[64]

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55. *U.S. v. Johnson*, 816 F.2d 918, 923 (3d Cir. 1987) (finding polygraph evidence admissible for rebuttal); *Anderson v. U.S.,* 788 F.2d 517, 520 (8th Cir. 1986) (noting that polygraph evidence has gained acceptance in enough courts to warrant allowing polygraph evidence at trial upon stipulation); *U.S. v. Miller*, 874 F.2d 1255, 1261 (9th Cir. 1989) (deciding that polygraph evidence had become so reliable that it warranted admission *for limited purposes to cure any prejudicial effect*); *U.S. v. Hall*, 805 F.2d 1410, 1417 (10th Cir. 1986) (admitting polygraph evidence only to show why police stopped investigation); *Piccinonna*, 885 F.2d at 1532 (noting increased use of polygraph evidence by law enforcement and federal agencies).

56. *Johnson*, 816 F.2d at 923; *Wolfel v. Holbrook*, 823 F.2d 970, 975 (6th Cir. 1987); *U.S. v. Kampiles*, 609 F.2d 1233, 1245 (7th Cir. 1979); *Anderson*, 788 F.2d at 519; *Miller*, 874 F.2d at 1262; *Hall*, 805 F.2d at 1420.

57. *Piccinonna*, 885 F.2d at 1536.

58. *Id.* at 1531 (citing McCormick, *supra* n. 54, at 884, and its own precedent *United States v. Hilton*, 772 F.2d 783, 785 (11th Cir. 1985), and *United States v. Rodriguez*, 765 F.2d 1546, 1558 (11th Cir. 1985)).

59. *Id*. at 1532.

60. *E.g. De Vries v. St. Paul Fire & Marine Ins. Co.*, 716 F.2d 939, 945 (1st Cir. 1983); *U.S. v. Brevard*, 739 F.2d 180, 180 (4th Cir. 1984).

61. *Piccinonna*, 885 F.2d at 1533.

62. *Id*.

63. *U.S. v. Galbreth*, 908 F. Supp. 877, 886 (D.N.M. 1995).

64. *Infra* nn. 92–94 and accompanying text.

Rather than rebut or confirm these assumptions, the court simply cited the conditions under which polygraph evidence was admissible in other jurisdictions.[65] It is significant to note that no federal jurisdiction admits polygraph evidence substantively.[66] Despite the overwhelming lack of support for admissibility, the court proceeded to espouse the Eleventh Circuit's new principles for admissibility.[67] What follows is a perplexing plethora of conclusory statements justifying an opinion on scientific evidence, which illustrates the court's misconceptions of polygraph evidence.[68]

> There is no question that in recent years polygraph testing has gained increasingly widespread acceptance as a useful and reliable scientific tool. Because of the advances that have been achieved in the field which have led to the greater use of polygraph examination, coupled with a lack of evidence that juries are unduly swayed by polygraph evidence, we agree with those courts which have found that a per se rule disallowing polygraph evidence is no longer warranted. Of course, polygraphy is a developing and inexact science, and we continue to believe it inappropriate to allow the admission of polygraph evidence in all situations in which more proven types of expert testimony are allowed. . . . Thus, we believe the best approach in this area is one which balances the need to admit all relevant and reliable evidence against the danger that the admission of the evidence for a given purpose will be unfairly prejudicial. Accordingly we outline two instances where polygraph evidence may be admitted at trial, which we believe achieve the necessary balance.[69]

But at no point during the majority's eight-page opinion does the court engage in a meaningful *Frye* analysis.[70] The closest the court came to such analysis was to concede that "[f]urther, proponents argue that the lack of standardization is being addressed and will progressively be resolved as the polygraph establishes itself as a

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65. *Piccinonna*, 885 F.2d at 1533–1534.

66. *Id*. at 1533. Traditionally, neither party may introduce this evidence substantively or for purposes related to a witness's credibility. *Id*.

67. *Id.* at 1535–1536.

68. *Id.* at 1535.

69. *Id.*

70. *Id.* at 1529–1537.

valid scientific test."[71] How can a test be on its way to establishing itself as a valid scientific test and still satisfy the *Frye* reliability standard? The answer is simple — it cannot. *United States v. Piccinonna*[72] indicates that the court probably did not understand the capricious science known as polygraph evidence. It seems that *Piccinonna* is an example of the Eleventh Circuit simply trying to fit in with a majority trend, rather than truly examining the polygraph evidence issue.[73]

The most remarkable part of the opinion is Judge Frank M. Johnson, Jr.'s dissent, with which this Author concurs. It is remarkable not because the opinion presents evidence that demonstrates why polygraph evidence fails the *Frye* test, but because it demonstrates the lack of evidence available to prove that polygraph evidence can pass *Frye* muster.[74] At the outset of the opinion, Judge Johnson concurred that polygraph evidence should be admissible, but disagreed that polygraph evidence "has gained acceptance in the scientific community as a reliable instrument for detecting lies."[75] After briefly introducing the science underlying polygraph examinations, Judge Johnson indicated that polygraph science is based on "questionable assumptions."[76] These questionable assumptions are the reasons why polygraph evidence is too capricious a science to be placed before a jury.[77]

The first questionable assumption is that the examinee cannot control bodily responses when answering questions.[78] Jetfighter pilots are taught to control their physiological responses to react most efficiently when operating a combat aircraft.[79] The opinion goes on to note that little research has been done to determine the

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71. *Id.* at 1533 (citing Charles M. Sevilla, *Polygraph 1984: Behind the Closed Door of Admissibility*, 16 U.W.L.A. L. Rev. 5, 19 (1984)).

72. 885 F.2d 1529 (11th Cir. 1989).

73. *Id*.

74. *Id*. at 1541 (Johnson, J., concurring in part and dissenting in part).

75. *Id*. at 1537.

76. *Id*. at 1537–1538.

77. *Id.* at 1538–1539.

78. *Id*. at 1538.

79. *Id*. Controlling one's physiological reaction is of paramount importance when engaging an enemy in combat. Judge Johnson argued that if they can be taught to control their responses, anyone can be taught to control physiological responses. Although a small number of defendants are jet fighter pilots, the point is that these techniques, which can deceive polygraph readings, can be effectively taught to individuals. That fact alone casts doubt on polygraph evidence. *Id*.

effectiveness of countermeasures;[80] the research that has been conducted returned conflicting results.[81] The simple fact is that physical countermeasures are effective when the subject is trained in countermeasures.[82] Countermeasures seem to present the most daunting hurdle for polygraph evidence. Yet, the majority spent no time considering this issue or indicating why countermeasures are of no concern. Given the importance scientists give to countermeasures,[83] the accuracy of the analysis is questionable.

The second questionable assumption asserts that stressful questions (assumingly related to the crime) elicit certain physiological responses.[84] Judge Johnson cited a study that indicates people can be taught to change their body's reactions when an examiner asks a stressful question.[85] If this is true, the third assumption that polygraph science relies on, that examinees will exhibit certain identifiable reactions when lying, also is false.[86] There is no proof that when a human being lies, certain identifiable reactions will occur.[87] Related to the third assumption, the fourth assumption is that people will respond to answering stressful questions similarly.[88] Judge Johnson concluded his opinion by elaborating on the inaccurate statistics that were presented to the court and extrinsic factors that would affect polygraph examination results adversely.[89] Finally, Judge Johnson noted that the scientific community remained divided on the issue of polygraph accuracy, and, therefore, polygraph evidence should be excluded pursuant to Federal Rules of Evidence 608 and 702.[90]

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80. *Id*. Countermeasures are those tactics examinees employ to distort the reactions a polygraph machine detects. *Id*.

81. *Id*.

82. *Id*.

83. *Id*. In any book or article that deals with polygraph testing, there is almost always a discussion concerning countermeasures. Yet, in *Piccinonna*, the majority simply ignored the issue. *Id*. at 1529–1537. For a discussion of countermeasures and how to employ them successfully, see Lykken, *supra* note 31, at 273–280.

84. *Piccinonna*, 885 F.2d at 1538 (Johnson, J., concurring in part and dissenting in part).

85. *Id.* (discussing Tara Ney, *Expressing Emotions and Controlling Feelings,* in *The Polygraph Test: Lies, Truth and Science* 65 (Anthony Gale ed., Sage Publications, Inc. 1988)). "According to this theory, people can adjust their thinking to 'reappraise' the stressful stimuli and create a different emotional reaction than one might expect." *Id*. at 1539.

86. *Id*.

87. *Id.*

88. *Id.*

89. *Id*. at 1539–1541.

90. *Id*. at 1542; *supra* nn. 53–57 and accompanying text.

The scientific community remains sharply divided over the issue of the validity of polygraph exams. Although presented as a rigorously "scientific" procedure, the

Contrary to Judge Johnson's dissent, the *Piccinonna* majority allowed admission of polygraph evidence in two situations. Polygraph evidence is admissible when the parties stipulate to admissibility or to corroborate or impeach testimony.[91] In the stipulation, parties must agree to the polygraph examination technique that will be used, the type and nature of questions to be asked during the polygraph test, the polygraph examiner, and the use of the test as evidence during trial.[92] If the parties do not stipulate to admitting polygraph evidence, it may be used only to corroborate or impeach testimony.[93] In this instance, polygraph evidence cannot be used substantively. To use polygraph evidence to corroborate or impeach testimony, the proponent must first serve the opponent with advance notice of intent to offer the evidence.[94] Second, the side not seeking to introduce polygraph evidence must have the opportunity to conduct a polygraph examination using an examiner of its choice and covering substantially the same questions.[95] Modifications to the polygraph evidence rule do not restrict the trial judge's ability to exclude polygraph evidence pursuant to other applicable evidentiary rules.[96] The *Piccinonna* court concluded, "We neither expect nor hope that today's holding will be the final word within our circuit on this increasingly important issue."[97] After reversing the per se ban, the Eleventh Circuit remanded the case for further proceedings.[98]

On remand in *Piccinonna*,[99] the trial court correctly ruled that the polygraph evidence, proffered during Piccinonna's first trial, was irrelevant pursuant to Federal Rule of Evidence 402[100] and inadmis

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> polygraph test in fact relies upon a highly subjective, inexact correlation of physiological factors having only a debatable relationship to dishonesty as such. The device detects lies at a rate only somewhat better than chance. Polygraph evidence, therefore, should not be admissible under Rule 702 or under Rule 608 to impeach a witness.

Piccinonna, 885 F.2d at 1542 (Johnson, J., concurring in part and dissenting in part).

91. *Piccinonna*, 885 F.2d at 1535–1536.
92. *Id*. at 1536.
93. *Id*.
94. *Id*.
95. *Id*.
96. *Id*.
97. *Id*. at 1537.
98. *Id*.
99. 729 F. Supp. 1336 (S.D. Fla. 1990), *aff'd without opinion*, 925 F.2d 1474 (11th Cir. 1991).
100. Federal Rule of Evidence 402 states that

> [a]ll relevant evidence is admissible, except as otherwise provided by the Constitution of the United States, by Act of Congress, by these rules, or by other rules prescribed by

sible pursuant to Federal Rule of Evidence 608.[101] The evidence was irrelevant, because the specific questions asked during the polygraph examination did not bear on the issue before the jury, specifically, whether the defendant committed certain criminal acts.[102] In addition, the probative value of the questions asked did not significantly outweigh the evidence's prejudicial effect.[103]

In short, the district court simply was bewildered by the Eleventh Circuit's position.[104] In his order, Judge Jose A. Gonzales, Jr. wrote the following:

> At the outset, this court is unclear as to its duty under the Eleventh Circuit's Delphic pronouncement. Is this court required to grant the defendant a new trial? Is the court only to address the admissibility of the original polygraph test administered on November 25, 1985 by George Slattery? Or, is the court to consider any new test submitted by the defendant (such as the polygraph test administered to the defendant in January 1990) and require the parties to follow the procedures outlined in the appellate opinion?

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the Supreme Court pursuant to statutory authority. Evidence which is not relevant is not admissible.

Fed. R. Evid. 402 (2000). This rule permits admission of all relevant evidence. Weissenberger, *supra* n. 7, at 51. Relevance is defined in Federal Rule of Evidence 401 as evidence "having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Fed. R. Evid. 401 (2000). Unless there is public policy, law, rule, or constitutional principle to the contrary, irrelevant evidence is excluded from trial to keep the jury focused on the issue it is empaneled to decide. Weissenberger, *supra* n. 7, at 51–52.

101. Federal Rule of Evidence 608(a) states that

> [t]he credibility of a witness may be attacked or supported by evidence in the form of opinion or reputation, but subject to these limitations: (1) the evidence may refer only to character for truthfulness or untruthfulness, and (2) evidence of truthful character is admissible only after the character of the witness for truthfulness has been attacked by opinion or reputation evidence or otherwise.

Fed. R. Evid. 608(a) (2000). This rule is the trial lawyer's favored weapon. Federal Rule of Evidence 608 allows the advocate to impeach a testifying witness's credibility. Weissenberger, *supra* n. 7, at 147. When a witness takes the stand and testifies, his or her credibility is at issue. *Id*. Exploring that credibility is essential so the jury can determine the witness's character for truth and veracity. *Id*.

102. *Piccinonna*, 729 F. Supp. at 1337.

103. *Id*. In effect, the court was concerned with how the jury would receive polygraph evidence. *Id*. It would be hard pressed to find anything in *Piccinonna* that would assuage this fear.

104. *Id.* at 1336.

> While this court intends to act as instructed, it is not clear what the Court of Appeals would have this court do.[105]

The order went on to examine the questions asked during the polygraph examination and found them irrelevant.[106] Furthermore, even if the questions were relevant, the polygraph evidence still would have been excluded, because the probative value of the results was outweighed substantially by the unfairly prejudicial effect it would have on the jury.[107] Finally, the court noted that the Eleventh Circuit was silent as to how polygraph evidence would affect Federal Rule of Evidence 608.[108] Because Rule 608 concerns testimony about the defendant's character, a single polygraph examination is not an adequate foundation for an opinion.[109] The ruling was affirmed on appeal without an opinion.[110]

Piccinonna also permits introduction of polygraph evidence when the parties stipulate to its admissibility or for impeachment or corroboration of the defendant's testimony.[111] The Eleventh Circuit implied that a trial court would be overruled only upon a showing of an abuse of discretion (i.e., the court permitting polygraph evidence in absence of stipulation and for substantive evidence or refusing to admit polygraph evidence in the face of a stipulation).[112] At the time, most scholars believed *Piccinonna* would

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105. *Id.*

106. *Id.* at 1337.

107. *Id.* at 1338. Introducing evidence that only serves to prejudice the jury for or against a party to the litigation is expressly prohibited pursuant to Federal Rule of Evidence 403. Fed. R. Evid. 403 (2000).

108. *Id.* Federal Rule of Evidence 608 permits witnesses to testify to the defendant's character for truthfulness in limited situations. Weissenberger, *supra* n. 7, at 147–150. The Rule allows the defense to present evidence that the defendant is truthful in nature, implying that his or her testimony should be believed, but the Rule also allows the prosecution to rebut that position by presenting specific instances of bad conduct. *Id*.

109. *Piccinonna*, 729 F. Supp. at 1338.

110. *Piccinonna*, 925 F.2d at 1474.

111. 885 F.2d at 1535–1536. Floodgates also remain guarded by Federal Rule of Evidence 702. Fed. R. Evid. 702 (2000).

> If 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.

Id. This Rule governs the admissibility of scientific or specialized evidence. Most important, it expressly states that the evidence must be able to assist the trier of fact. Weissenberger, *supra* n. 7, at 193. This Rule allows an expert witness to testify in the form of opinion, instead of just from personal knowledge to which lay witnesses are confined. *Id*.

112. *Piccinonna*, 885 F.2d at 1536.

become a seminal case concerning polygraph evidence; however, the standard for evaluating all scientific testimony changed in 1993.[113]

In 1993 *Daubert* changed the standard required to introduce scientific evidence.[114] *Daubert* requires the trial court to conduct the following nonexhaustive inquiry: (1) whether the science has been tested; (2) has the science been subject to peer review; (3) what is the error rate of accuracy; and (4) whether the relevant scientific community accepted the evidence as "good science."[115] Although *Piccinonna* found that polygraph evidence satisfied Federal Rule of Evidence 702 and the *Frye* standard,[116] the Eleventh Circuit did not consider polygraph evidence in light of *Daubert* until four years later.[117]

At the outset, the *Daubert* Court noted that most jurisdictions adopted the *Frye* standard, but that the standard had come under growing criticism.[118] After considering the federal rules of evidence,[119] the Court concluded that Federal Rule of Evidence 702 supercedes *Frye*,[120] although the Rule did not open the floodgates to all kinds of scientific evidence.[121] The trial judge guards the floodgate and must ensure that evidence is not only helpful to the trier of fact but also reliable.[122] However, the Court clarified that the *Frye* standard is not obsolete and may be considered in conjunction with the four factors outlined above.[123]

In 1998 the Eleventh Circuit had its first opportunity to consider polygraph evidence using the *Daubert* analysis.[124] *United States v. Gilliard*,[125] reviewed the relevant/irrelevant technique, the concealed or guilty knowledge technique, and the CQT.[126] The court

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113. Jeffrey Philip Ouellet, *Posado and the Polygraph: The Truth behind Post-Daubert Deception Detection*, 54 Wash. & Lee L. Rev. 769, 775 (1997).

114. *Id*. at 775–776.

115. 509 U.S. at 593–594.

116. 885 F.2d at 1536.

117. *Gilliard*, 133 F.3d at 809.

118. 509 U.S. at 585. "The *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." *Id*. (emphasis added).

119. The Federal Rules of Evidence were adopted in 1975, more than fifty years after *Frye*.

120. *Id*. at 589 (examining the history of the federal rules of evidence and the congressional intent behind their promulgation).

121. *Id*.

122. *Id*.

123. *Id.* at 593–594.

124. *Gilliard*, 133 F.3d at 812.

125. 133 F.3d 809 (11th Cir. 1998).

126. *Id*. at 813.

simply dismissed the relevant/irrelevant technique as inadmissible, because it failed to meet the *Daubert* standard (i.e., acceptance by the scientific community as "good science)."[127] However, the court provided no analysis to support this conclusion.[128] Although the concealed or guilty knowledge technique was believed to be "good science," it could be difficult to obtain accurate results.[129] Again, analysis for this proposition seems to have been omitted from the published opinion.[130] The CQT approach was determined to be "good science" pursuant to the government's stipulation; therefore, analysis of this approach was unnecessary.[131] The court barely considered how the *Daubert* standard affects the CQT.[132] Finally, the court addressed the Honts polygraph examination, which includes relevant, neutral, and directed lie questions.[133]

Although this was the first time the Eleventh Circuit could have rectified its lackluster performance in *Piccinonna*, the court spent less than one page applying the *Daubert* factors to the polygraph evidence.[134] The court also neglected to address the concerns presented in the *Piccinonna* dissent.[135] Shortly after that meager analysis, the judges swiftly ruled that the trial court did not abuse its discretion when it prohibited bringing polygraph evidence to the jury's attention.[136]

Gilliard's dismal *Daubert* analysis began by critiquing a polygraph study performed by Dr. Charles R. Honts, the polygraph examiner in this case, and Professor David Raskin, with twenty-five test subjects, thirteen innocent of any crime and twelve guilty of a specific crime.[137] Dr. Honts testified that his polygraph examination techniques were between 92 and 100 percent accurate.[138] Of course, the government presented its own expert to discount Dr. Honts's accuracy.[139] Then, the opinion abruptly concluded by stating that

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127. *Id*.
128. *Id*.
129. *Id.*
130. *Id*.
131. *Id*.
132. *Id*. at 813–814.
133. *Id.* at 814.
134. *Id*. at 814–815.
135. *Supra* nn. 78–102 and accompanying text (discussing Judge Johnson's dissent).
136. *Gilliard*, 133 F.3d at 816.
137. *Id*. at 814. In that study, guilt "was confirmed by confession (by either the individual or another individual), physical evidence, or recantation by the alleged victim." *Id*.
138. *Id*.
139. *Id*. at 814–815. Dr. Stanley Abrams testified on behalf of the government and spoke to the general approval of Dr. Honts's hybrid technique. *Id*.

Gilliard failed to show that Dr. Honts's method had been generally accepted as "good science," so "the district court did not abuse its discretion in excluding the Honts polygraph evidence under Federal Rule of Evidence 702 or under Federal Rule of Evidence 403."[140] The above analysis leads the Author to infer that the court did not understand the complexities and dangers of polygraph evidence.

It is obvious that this Author disagrees with the Eleventh Circuit's approach to the polygraph decision. The first *Daubert* consideration is whether the science can be tested.[141] Of course, tests can be performed using polygraph machinery. Further, it has been confirmed that a polygraph machine does record changes in the human autonomic response systems,[142] but those changes have not been definitively linked to lying traits.[143] Furthermore, polygraph examination results can be tainted depending on the examinee's personal values or religious beliefs.[144]

The examination itself measures no data specifically attributed to lying.[145] Although polygraph machines can detect changes in endocrine, respiratory, nervous, and circulatory systems, the changes detected have never been proven to uncover lying.[146] It is undisputed that while most subjects exhibit certain physical and autonomic responses when lying, there is no data available to prove beyond a reasonable doubt that specific responses are due to lying.[147] Fear of failing the examination, a pending situation at home, perceiving a stressful day, experiencing a hormone surge, or any number of causes may create the same physical and autonomic responses purported "scientists" label as evidence of lying.[148] Polygraphist researchers have failed to prove that their machines detect irrefutable evidence that a subject is not telling the whole truth.[149]

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140. *Id.* at 815.

141. 509 U.S. at 593.

142. *Supra* nn. 28–31 and accompanying text (explaining how a polygraph machine works).

143. *U.S. v. Cordoba*, 991 F. Supp. 1199, 1202 (C.D. Cal. 1998), *aff'd*, 194 F.3d 1053 (9th Cir. 1999) (suggesting that polygraph experts are unable to say conclusively that certain responses indicate an individual is lying).

144. *U.S. v. Dominguez*, 902 F. Supp. 737, 739 (S.D. Tex. 1995) (suggesting that the examinee's personal beliefs affect polygraph results).

145. *Supra* nn. 16–46 (discussing the basic way polygraph machinery works and how polygraph tests are administered).

146. *Supra* nn. 28–31 and accompanying text (explaining how a polygraph machine works).

147. *Supra* nn. 28–31 and accompanying text (explaining how a polygraph machine works).

148. *U.S. v. Scheffer*, 523 U.S. 303, 312 (1998).

149. *Id*.

In addition, the newest polygraph machines boast increased reliability. For example, the newest machines attach an electrode reader to the subject's fingers. These readers are believed to record the same information as the older polygraph machines that required blood pressure cuffs and other medieval-looking devices. But, polygraphists who administer polygraph examinations using the new device report that it has a thirty-three percent accuracy rating. These machines are still too novel to be employed regularly.[150]

Computers can administer some polygraph examinations. However, if scientists cannot identify the specific characteristics associated with lying, it follows that the computer can be programmed only to make incorrect evaluations. Because a computer is administering the polygraph, evaluations would be consistently incorrect.[151]

Given the aforementioned concerns noted in Judge Johnson's dissent in *Piccinonna*, it is difficult to conceive how a test can be conducted on science that is based on false assumptions. Yet, the *Gilliard* court failed to discount Judge Johnson's apprehensions.[152] As a result, it seems difficult to assert that polygraph examinations are capable of accurate testing.

The second concern, pursuant to *Daubert*, is whether the science has been subject to peer review and publication.[153] In *Daubert*, the Court stated, "Publication . . . is not a sine qua non of admissibility; it does not necessarily correlate with reliability."[154] This is no more evident than in the case of polygraph evidence. Although polygraph evidence has been written about extensively, there is almost a universal disagreement concerning valid testing procedures, examiner qualifications, countermeasure effectiveness, and more.[155] Given the available literature, it seems that those reviewing this evidence have not considered polygraph evidence good science consistently. However, there is no doubt that polygraph testing has met the literal *Daubert* standard, subject to publication and review; this analysis could have been as meager as the *Gilliard* court's entire *Daubert* analysis.[156]

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150. Interview, *supra* n. 27.

151. *Piccinonna*, 885 F.2d at 1541 (Johnson, J., concurring in part and dissenting in part).

152. 133 F.3d at 814–816.

153. 509 U.S. at 593.

154. *Id*.

155. *E.g.* Abrams, *supra* n. 20, at 9–10; Ferguson & Miller, *supra* n. 6, at 75; Lykken, *supra* n. 31, at 50; Jennifer E. Cobb, *Admissibility of Polygraph Evidence in Light of Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 20 Am. J. Tr. Advoc. 215, 217 (1996).

156. 509 U.S. at 593.

Third, *Daubert* requires the trial judge to consider any known error rates and operational standards. The examiner, a human being, administers the examination with certain inherent biases. The examiner must psychologically and adequately prepare the examinee for the polygraph examination before the test is conducted. If the examiner fails, the results are useless. These biases factor into the examination results either intentionally or subconsciously.[157]

Even the proponents of the polygraph technique agree that the examiner, not the machine, is the crucial factor in arriving at reliable results.[158]

> The examiner's expertise is critical in (1) determining the suitability of the subject for 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.[159]

An example of a biased examiner was uncovered in the infamous polygraph examination of John DeLorean.[160] When seeking to introduce favorable polygraph examination results, defense counsel may "shop" for an examiner who will return favorable results.[161] Proponents of polygraph evidence suggest that courts require disclosure of all polygraph examinations to opposing counsel only if polygraph evidence is going to be produced at trial.[162] However, this would be a drastic measure. Defense counsel, pursuant to the attorney work product doctrine, has the right to utilize several medical doctors when determining if a defendant is insane.[163] The law does not require the defense to furnish the prosecution with

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157. *Id.* at 594.

158. *See* Charles R. Honts & Mary V. Perry, *Polygraph Admissibility: Changes and Challenges*, 16 L. & Hum. Behav. 357, 369–373 (1992) (explaining how the examiner's training impacts the validity and reliability of test results).

159. *Id*. at 358.

160. *Id*. at 371–372. John DeLorean was the youngest executive to operate DeLorean Motor Company, which produced the car featured in the *Back to the Future* movies. *Id*. DeLorean experienced financial difficulty and engaged in heroin smuggling. *Id*. For a discussion of the DeLorean story, see Michael S. Lief, H. Mitchell Caldwell & Benjamin Bycel, *Ladies and Gentlemen of the Jury: Greatest Closing Arguments in Modern Law* 305 (Scribner 1998).

161. Honts & Perry, *supra* n. 158, at 372.

162. *Id*. at 372–373.

163. *Id*.

every doctor's name and evaluation even if those results are favorable to the government.[164]

Examiners may belong to the APA, which is a voluntary organization.[165] Censure or expulsion from the organization does not prohibit one from being a polygraphist.[166] Although the organization promulgates an ethical code, the APA lacks enforcement authority to ensure compliance.[167]

Further, polygraphists' ethical "standards of practice" are silent concerning the specific scoring technique the examiner chooses to employ.[168] Examiners are encouraged to utilize a "validated testing technique."[169] The APA defines a validated testing technique as "a polygraph testing technique, for which exists a body of acceptable scientific studies. A polygraph testing technique both endorsed by the APA Research and Development Committee and published in *Polygraph*, shall be presumed to be a validated testing technique."[170]

Although this "standard" does seem to detail a minimum level of acceptability, there is no explanation of "acceptable scientific studies."[171] With the APA's vagueness, it is clear that professional polygraphists do not agree, much less understand, what should be considered "good science" when it comes to polygraph examinations.[172] If those experienced in this area cannot distinguish sound science from junk science, how can a court, much less a jury?

Most important, the education of examiners seems to be in a very poor state.[173] Leading polygraphist Honts examined the Department of Defense Polygraph Institute (DODPI), the leading training center for polygraph examiners, and found that the education was less than adequate to prepare polygraphists.[174] The DODPI's teaching methods were obsolete and ineffective in determining if a subject was telling the truth.[175] In addition, the DODPI

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164. *Id*.

165. Am. Polygraph Assn., *The American Polygraph Association* <http://www.polygraph.org> (accessed Nov. 30, 2000).

166. *Id*.

167. Am. Polygraph Assn., *APA Code of Ethics* <http://www.polygraph.org/apa1.htm#code> (accessed Nov. 30, 2000).

168. Am. Polygraph Assn., *Standards of Practice* <http://www.polygraph.org/apa1.htm#standards> (accessed Nov. 30, 2000).

169. *Id*.

170. *Id*.

171. *Id*.

172. *Id*.

173. Honts & Perry, *supra* n. 158, at 369.

174. *Id*. at 370.

175. *Id*.

taught polygraph methods that even polygraph scientists considered bad science.[176] Although Honts advocates uniform training and education, he stipulates, "[T]here is no clear guidance as to what standards should be adopted, and no data to indicate what type of training produces competent examiners."[177]

A final concern when examining operational standards and error rates is countermeasures. Countermeasures may be applied to deceive polygraph examiners. Countermeasures are techniques examinees employ to cause the polygraph machine to record false readings. The burden to detect these countermeasures is on the examiner. With flimsy examiner qualifications, it is almost unbelievable that they can be trained sufficiently to identify when someone is telling the whole truth, much less when an examinee may employ countermeasures.[178]

Several polygraphists and polygraph associations claim that countermeasures are an insignificant threat. Some studies profess an ability to detect countermeasures with 100 percent accuracy. Most experiments use subjects that are actors in a mock situation or people who have already been convicted and sentenced to incarceration.[179]

However, these studies present the polygraph industry with a double-edged sword. If the tests show that countermeasures were used effectively and the subject was able to lie to the examiner without the examiner detecting the lie, then the research is quite accurate. But if the tests show that countermeasures were not used effectively, the subject was not able to lie to the examiner without the examiner detecting the lie. The research may be flawed, inaccurate, and unreliable, because examinees will always devise better ways to beat the machine. Obviously, if the examiner is unable to detect countermeasures, then countermeasures are successful methods to deceive polygraph examiners. On the contrary, in most laboratory experiments, countermeasures can be detected, but volunteers do not adequately represent those taking a polygraph examination for defense purposes, because the test subjects do not have the same vested interest as a normal examinee.[180]

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176. *Id.*
177. *Id*. at 370–371.
178. *Id*. at 373.
179. Abrams, *supra* n. 20, at 185.
180. *Id*. at 51.

As previously noted, polygraph machines detect and report autonomic changes in endocrine, respiratory, nervous, and circulatory systems. Although actors can be trained to exhibit physical responses, they cannot initiate autonomic functions of the body, because those functions, by definition, occur automatically.[181]

Certain subjects, like prison inmates, have nothing to lose, so getting caught in a lie has little consequence to them. The very premise upon which a successful polygraph examination must be built is absent when the experiment's subjects are inmates. Recall that it is essential for a polygraph examiner to convey to the subject that the test is accurate and will detect when the whole truth is not told. This causes fear in the examinee and the body begins to react to the stress, reactions that the polygraph machine is designed to record. The subject must fear the consequences of lying and dealing with negative consequences. If the subject, a prison inmate, has already lost and is incarcerated, he or she will not care if the polygraph examination is accurate. Their judicial experience with truth seeking is negative. Accordingly, the polygraph examination will not be accurate, because there is nothing to lose. Therefore, the accuracy of countermeasure detection also is closely linked to the type of subject used in the experiment.[182]

A host of other factors may distort polygraph accuracy. Some studies suggest that hypnosis can create anomalies in polygraph results.[183] Other effective countermeasures include movements, such as tongue biting, toe pressing, and subtle pain.[184] In one study, the examiner detected countermeasures with thirty-four percent accuracy, twenty-six percent inaccuracy, and thirty-seven percent inconclusivity.[185] Nonetheless, because the volunteers do not have a vested interest in the outcome, the accuracy of those laboratory examinations probably is overestimated.

In addition, mild tranquilizers, if taken before the examination, significantly affect the polygraph test results. Although several studies indicate that narcotics do not significantly affect polygraph results, the notion is almost laughable when one considers the effect drugs have on the autonomic response systems in a human body. Combining these countermeasures with the countermeasure

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181. *Id.*

182. *E.g.* Lykken, *supra* n. 31, at 273–279 (discussing various "schools" of countermeasures and how they work to deceive polygraph examiners).

183. Abrams, *supra* n. 20, at 185.

184. *Id.* at 185–186.

185. *Id.* at 186.

information available on the Internet, it is almost impossible for one to conclude rationally that polygraphists and polygraph machines cannot be duped.[186]

The last *Daubert* inquiry incorporates the aforementioned *Frye* standard — Has the science been generally accepted?[187] The logical question that must be answered is, who forms the relevant scientific community that could generally accept this science? At least one court, in *United States v. Pinter*,[188] reasoned that the relevant scientific community includes more than polygraphists, because if only polygraphists were within the relevant scientific community, acceptance would be 100 percent.[189] This community should include those trained in psychology and psychophysiology and could include those trained in psychiatry, neuroscience, and medicine.[190] The *Pinter* standard creates an insurmountable problem for polygraph proponents, because the American Medical Association does not believe in the validity of polygraph science.[191] The court noted, "On whole, the evidence indicates that while certain segments of the relevant scientific community believe polygraph examination results to be valid and reliable, other segments of the community have significant reservations about polygraph examinations."[192]

How does the *Pinter* standard apply to *Daubert*? It is simple. Polygraph evidence generally is not accepted as good science. In fact, in *United States v. Cordoba*,[193] the court indicated that "the validity of polygraph techniques is extremely polarized."[194] At this point, it is impossible to conclude that polygraph evidence generally has been accepted.[195]

Polygraph evidence fails the *Daubert* test and should not be admissible in a trial court. Perhaps this failure explains why some federal courts admit polygraph evidence for limited purposes and not as substantive evidence. It also may explain the minimal

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186. *Id.*; *e.g.* Doug G. Williams, *How to Sting the Polygraph!* <http://www.polygraph.com> (accessed Nov. 30, 2000) (selling manuals that instruct the reader on how to "protect" oneself against the polygraph test).

187. 509 U.S. at 594.

188. 969 F. Supp. 1246 (W.D. Wash. 1997).

189. *Id*. at 1251.

190. *Id*.

191. *Id.*

192. *Id*.

193. 991 F. Supp. 1199 (C.D. Cal. 1998).

194. *Id.* at 1204 (citation omitted).

195. *E.g. id*.; *Pinter*, 969 F. Supp. at 1251 (indicating that polygraph evidence has not been accepted as "good science").

Daubert analysis found in circuit court opinions all over this country.[196]

Placing the validity of polygraph evidence in an even more precarious light, in 1998 the United States Supreme Court considered polygraph evidence and its role in federal courts in *United States v. Scheffer*.[197] Favorable polygraph evidence specifically was barred at Scheffer's trial pursuant to military rules of evidence.[198] On appeal, the United States Court of Appeals for the Armed Forces reversed the decision to exclude the evidence, because the rule violated the defendant's Sixth Amendment right to present exculpatory evidence.[199] It was not within the trial judge's discretion to exclude favorable polygraph evidence pursuant to Military Rule of Evidence 702.[200] The United States Supreme Court granted certiorari and found that a per se ban on polygraph evidence did not violate a defendant's Sixth Amendment right to present a defense.[201]

The *Scheffer* Court made a bold statement concerning polygraph evidence.

> A fundamental premise of our criminal trial system is that "the jury is the lie detector." Determining the weight and credibility of witness testimony, therefore, has long been held to be the "part of every case [that] belongs to the jury, who are presumed to be fitted for it by their natural intelligence and their practical knowledge of men and the ways of men."
>
> *By its very nature, polygraph evidence may diminish the jury's role in making credibility determinations*. The common form of polygraph test measures a variety of physiological responses to a set of questions asked by the examiner, who then interprets these physiological correlates of anxiety and offers an opinion to the jury about whether the witness — often, as in this case, the accused — was deceptive in answering questions about the very matters at issue in the trial. Unlike other expert witnesses who testify about factual matters outside the jurors' knowledge,

196. *E.g. Piccinonna*, 885 F.2d at 1535–1536 (barely analyzing *Daubert*).

197. 523 U.S. 303 (1998).

198. *Id*. at 306. Military Rule of Evidence 707(a) states, pertaining to court marshal proceedings, "Nothwithstanding 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." Mil. R. Evid. 707(a) (2000).

199. *Scheffer*, 523 U.S. at 307.

200. Federal Rule of Evidence 702 is identical to Military Rule of Evidence 702. Fed. R. Evid. 702; Mil. R. Evid. 702 (2000).

201. *Scheffer*, 523 U.S. at 303.

> such as the analysis of fingerprints, ballistics, or DNA found at a crime scene, a polygraph expert can supply the jury only with another opinion, in addition to its own, about whether the witness was telling the truth. Jurisdictions, in promulgating rules of evidence, may legitimately be concerned about the risk that juries will give excessive weight to the opinions of a polygrapher, clothed as they are in scientific expertise and at times offering, as in respondent's case, a conclusion about the ultimate issue in the trial. Such jurisdictions may legitimately determine that the aura of infallibility attending polygraph evidence can lead jurors to abandon their duty to assess credibility and guilt. Those jurisdictions may also take into account the fact that a judge cannot determine, when ruling on a motion to admit polygraph evidence, whether a particular polygraph expert is likely to influence the jury unduly.[202]

This language, because it applies to the military rules of evidence, only addresses the president's right to promulgate an evidentiary rule.[203] However, it clearly indicates the majority's opinion and possible future treatment of the issue. Polygraph evidence is unreliable and may be substantially prejudicial to jurors.[204] Although *Scheffer* did not address whether polygraph evidence should be admissible directly, the conclusory nature of the opinion may indicate the pervasive views of this Supreme Court and the stance it would take if the issue presents itself. It remains to be seen what the appellate courts will do with polygraph evidence in light of *Scheffer*.

III: THE FEDERAL RULES OF EVIDENCE

When examining cases concerning polygraph evidence, it seems clear that it is not judicial precedent, but the federal rules of evidence that are the strongest tools at an advocate's disposal. Because admitting polygraph evidence requires a fact intensive inquiry,[205] case law cannot serve to exclude evidence, but argument pursuant to the federal rules of evidence can. Courts may only admit

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202. *Id.* at 313–314 (citations omitted) (emphasis added).

203. *Id*. at 312. While Congress reserves the right to create rules of evidence used in criminal and civil federal courts, the president of the United States, pursuant to his authority as commander in chief, promulgates rules for federal military courts. *Id*.

204. *Id*. at 313–314.

205. *Gilliard*, 133 F.3d at 809 (discussing the nonexhaustive list of factors employed in the *Daubert* test).

polygraph evidence after a fact intensive inquiry and argument by counsel. It is during those arguments, applying the facts to the evidentiary rules, where an advocate can convince the court to exclude polygraph evidence. A court must examine the polygraph issue on a case-by-case basis, or in other words, each and every time it is presented.[206] The following analysis examines the federal rules of evidence and suggests how the advocate may apply the facts to the rules when presenting an evidentiary argument to a trial court.

A. Federal Rule of Evidence 702: Testimony by Experts

If polygraph evidence is brought before a jury, expert testimony is required.[207] After all, it is not the polygraph machine that determines whether the subject is telling less than the whole truth; the examiner critiquing the autonomic responses makes that determination.[208] Federal Rule of Evidence 702 provides,

> If 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.[209]

Federal Rule of Evidence 702 is the advocate's tool to set the *Daubert* analysis in motion. Although *Daubert* provides the analysis for scientific evidence, Rule 702 is the evidentiary rule that engages this process, because it permits testimony at trial regarding the scientific evidence.[210] Yes, relevant scientific evidence is helpful to the trier of fact, but polygraph evidence does not qualify as relevant scientific evidence, because it fails to meet the *Daubert* standard and, therefore, should be excluded because it is not the type of information contemplated by Rule 702.[211] To this end, Federal Rule of Evidence 702 provides the opponent, usually the government, with its first tactical weapon to exclude polygraph evidence. Although *Daubert* espouses a list of factors a trial court may consider, that list is nonexhaustive.[212] Another factor the court

206. *Id*. at 812.
207. Ferguson & Miller, *supra* n. 6, at 9–10.
208. *Id*.
209. Fed. R. Evid. 702.
210. *Id*.
211. *Supra* nn. 140–193 and accompanying text.
212. 509 U.S. at 593.

should consider to determine if a witness has specialized knowledge is a polygraphist's education.[213]

In addition to arguing that the examiner lacks qualifications to testify as an expert, the trial advocate should bring to the court's attention the role the examiner plays in a polygraph test. Considering how a polygraph examination is conducted, it is clear that the examiner plays a large role in determining the results or placing that blindfold over the jurors' eyes. "There is no question an unethical examiner can cause a chart to appear truthful or deceptive by manipulating the situation in some manner."[214] The examiner's voice inflection, scoring method, pretest interview style, and personal beliefs can influence the polygraph examination results.[215]

However, the most critical issue regarding polygraph accuracy concerns the questions asked during the polygraph examination. If the questions are not accurate or focused, the results will be skewed and used to show that the examinee was not telling the whole truth.[216] In fact, questions can most often influence a polygraph examiner's inaccurate opinion about the examinee's truthfulness.[217] Several reported cases indicated that questions asked during a polygraph examination directly bore on the outcome.[218] The following examples illustrate this point.

A service station attendant was arrested and charged with robbery. The defendant took and failed a polygraph examination. When the examiner confronted the examinee with the failing results, the attendant admitted he took money from the till on a regular basis, but insisted that he was not involved with the robbery. Another example involves a bank employee suspected of embezzling $10,000, who took a polygraph examination and failed. Upon further investigation, law enforcement learned that the employee stole money from his cash register, but was not responsible for the embezzled money.[219] In both situations, although the examinee did not tell the whole truth, the failed test was not reliable proof that the employee committed the crime. The employ-

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213. *Supra* nn. 175–179 and accompanying text (discussing the present state of polygraphist education).

214. Abrams, *supra* n. 20, at 70.

215. *Id*.

216. John E. Reid & Fred E. Inbau, *Truth and Deception: The Polygraph ("Lie Detector") Technique* 180 (Williams & Wilkins Co. 1966).

217. Abrams, *supra* n. 20, at 85.

218. *Id*. at 85–86.

219. *Id.*

ees failed the polygraph tests, because the examiner did not, and likely could not, ask accurate and focused questions.

Other factors that can distort the presentation of polygraph examination results include lack of concern over detection, extreme emotional tension or nervousness, anger, prior involvement in similar acts, physical discomfort, excessive interrogation before the polygraph examination, an excessive number of test questions, adrenal exhaustion, self-deceit, physiological and mental abnormalities, age, and miscellaneous factors, such as an uncomfortable room temperature.[220] It is hard to believe that someone in a police station, accused of committing a crime and preparing to take a polygraph examination, would not be nervous or otherwise affected by one or more of these factors. Yet, it is at this point that polygraphists purport to be able to record a "normal moment."[221]

The examinee also may actively contribute to "beating" a polygraph examination. The average Internet surfer need only go to a search engine and type, "How do I beat a polygraph?" Results ranging from www.polygraph.cc,www.stopolygraph.com, www.polygraph-buster.com, or www.nopolygraph.com,[222] allow the Internet surfer to purchase and download ways to beat[223] a polygraph examination. On one site, the internet surfer can download *How to Sting the Polygraph* for just $47.75.[224] Doug G. Williams,[225] former Oklahoma City police polygraph examiner, maintains this site and sells the same techniques he taught Diane Sawyer. Providing credence for his technique, the hostess deceived a polygraph before millions on Central Broadcasting Station's *60 Minutes*.[226]

Williams also taught a United States Department of Justice attorney how to beat a polygraph on Central Broadcasting Station's *Nightwatch*.[227] Williams discussed these techniques with Tom

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220. Reid & Inbau, *supra* n. 28, at 168–207.

221. *Supra* nn. 36–37 and accompanying text (discussing what constitutes a normal moment).

222. Williams, *supra* n. 186.

223. The term "beat" means to trick the polygraph examiner into recording a false reading.

224. Doug G. Williams, *Sting Publications: Order Form* <http://www.polygraph.cc/order.html> (accessed Nov. 30, 2000).

225. Doug G. Williams, *Sting the Polygraph: About Doug* <http//www.polygraph.cc/about doug.htm> (accessed Nov. 30, 2000). Doug Williams received a bachelor of science in police science from Oklahoma City University and administered polygraph examinations for law enforcement agencies, including the Federal Bureau of Investigations and the United States Secret Service. He was the first person licensed under the Oklahoma Polygraph Examiners Act and testified before both United States congressional houses. *Id*.

226. *Id*.

227. *Id*.

Brokaw, *CNN World News*, *CNN Headline News*, and on the Fox Family Channel.[228] On the last show, Williams taught the anchorperson to control every display on the polygraph machine.[229] Several confirmed lies were told, but the polygraph machine registered reactions the examiner interpreted to mean the examinee was being completely truthful.[230] Consequently, the examinee "beat" the polygraph examination.

Considering the formal requirements, or lack thereof, to become a polygraphist, coupled with the influential role the examiner plays in a polygraph test, it is easy to understand why Federal Rule of Evidence 702 can bar polygraph evidence once the trial advocate formulates an effective argument. The witness should not be qualified as an expert, because the examiner does not have the required specialized knowledge.

Currently, Alabama,[231] Arkansas,[232] Illinois,[233] Iowa,[234] Kentucky,[235] Maine,[236] Michigan,[237] Mississippi,[238] Nebraska,[239] Nevada,[240] North Dakota,[241] Oklahoma,[242] Oregon,[243] South Carolina,[244] South Dakota,[245] Tennessee,[246] Texas,[247] Utah,[248] Vermont,[249] Virginia,[250] and West Virginia[251] require a polygraphist to be licensed.[252] Licensing requirements differ among states. For

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228. *Id*.
229. *Id*.
230. *Id*.
231. Ala. Code § 34-25-21 (Supp. 1997).
232. Ark. Code Ann. § 17-39-201 (LEXIS L. Publg. 1987 & Supp. 1995).
233. 225 Ill. Comp. Stat. § 430/3 (1998).
234. Iowa Code § 80A.3 (1985).
235. Kan. Stat. Ann. § 329.030 (1985).
236. 32 Me. Rev. Stat. Ann. § 7154 (1964).
237. Mich. Comp. Laws § 338.1708 (1992).
238. Miss. Code Ann. § 73-29-11 (1972).
239. Neb. Rev. Stat. § 81-1914 (1999).
240. Nev. Rev. Stat. Ann. § 648.183 (LEXIS L. Publg. 2000).
241. N.D. Cent. Code § 43-31-03 (1993).
242. Okla. Stat. Ann. tit. 59, § 1457 (West 1989).
243. Or. Rev. Stat. § 703.050 (1989).
244. S.C. Code Ann. § 40-53-60 (1986).
245. S.D. Codified Laws § 36-30-2 (1994).
246. Tenn. Code Ann. § 62-27-106 (1997).
247. Tex. Occs. Code Ann. § 1703.202 (2000).
248. Utah Code Ann. § 58-64-101 (1998).
249. Vt. Stat. Ann. tit. 26, § 2904 (1998).
250. Va. Code Ann. § 54.1-1801 (1998).
251. W. Va. Code § 21-5-5c (1996).
252. *State Polygraph Licensing Boards* <http://www.polygraph.org/license.htm> (accessed Nov. 30, 2000).

example, Tennessee requires polygraphists to graduate from an accredited APA polygraph school, have a bachelor degree, *or* "two years of college and five years criminal or counterintelligence or [private] investigative work."[253] Texas also requires either a bachelor degree or five years of prior investigative work and either graduation from an approved polygraph course with six months as a polygraphist intern or twelve months as a polygraphist intern.[254]

In Texas, this internship follows training at one of fourteen APA polygraph institutes. The entire academic program lasts between seven and ten weeks. Additionally, two of these schools are only for federal and state law enforcement personnel and will not educate examiners for civil practice.[255]

For a science that requires its members to study the relationship between human behavior, physiology, and anatomy; understand the endocrine, respiratory, nervous, and circulatory systems; and learn how to detect and defeat countermeasures, it hardly seems reasonable that a standard polygraph academic curriculum spanning seven to ten weeks is sufficient to form a proper basis for an expert opinion.[256]

Therefore, when presenting the court with a Federal Rule of Evidence 702 objection, the opponent should emphasize the lack of formal training required to become a polygraph examiner, the meager academic requirements that currently exist for polygraph examiners, and an analysis indicating that polygraph evidence cannot satisfy *Daubert*. This argument should be sufficient to exclude polygraph evidence at trial.

B. Federal Rule of Evidence 608(a): Evidence of Character and Conduct of Witness, Opinion and Reputation Evidence of Character

Federal Rule of Evidence 608(a) allows defense counsel to bolster the defendant's credibility for truthfulness after the government calls that character trait into question.[257] Rule 608(a) provides,

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253. Betty Hughey, *Tennessee Board of Polygraph Examiners* <http://www.state.tn.us/commerce/poly.htm> (accessed Nov. 30, 2000).

254. *Texas Polygraph Examiners Board* <http://www.tpeb.state.tx.us.html> (last modified Mar. 20, 2000).

255. *Id*.

256. *Supra* pt. II (discussing the basic principles of polygraph testing).

257. Weissenberger, *supra* n. 7, at 149.

> The credibility of a witness may be attacked or supported by evidence in the form of opinion or reputation, but subject to these limitations: (1) the evidence may refer only to character for truthfulness or untruthfulness, and (2) evidence of truthful character is admissible only after the character of the witness for truthfulness has been attacked by opinion or reputation evidence or otherwise.[258]

A Rule 608 objection may bar introduction of polygraph evidence.[259] On remand, the United States District Court for the Southern District of Florida found that Piccinonna's polygraph evidence was inadmissible pursuant to Federal Rule of Evidence 608.[260] The *Piccinonna* court reasoned that one polygraph examination was an insufficient basis for an expert opinion as to the defendant's truthful character.[261] A polygraph examiner may only testify to an examinee's truthfulness during the instance when the polygraph examination was taken.[262] The examiner could not testify about character, because he or she did not observe the defendant over a period of time, and the examiner was, therefore, incapable of ascertaining whether the defendant is a truthful person.[263]

The polygraph examination is limited in scope. Hence, the examiner cannot testify to the defendant's general nature for truthfulness, but only to the defendants' truthfulness when answering questions concerning a crime for which the defendant is charged. The advocate should argue that a polygraph examination simply does not provide a polygraphist with the necessary basis to give an opinion in conformity with Federal Rule of Evidence 608, and a polygraphist's testimony about the defendant's character for truthfulness should be inadmissible.

Unfortunately, the Eleventh Circuit's decision to lift the per se ban on polygraph evidence will not assist those convicted before the per se ban was lifted. This rule was established in *United States v.*

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258. Fed. R. Evid. 608(a).

259. *Piccinonna*, 885 F.2d at 1536.

260. *Piccinonna*, 729 F. Supp. at 1339 (Johnson, J., concurring in part and dissenting in part).

261. *Id*. at 1338; *contra U.S. v. Crumby*, 895 F. Supp. 1354, 1363 (D. Ariz. 1998) (finding that a polygraph examiner can testify that the defendant exhibited a truthful character, but may not testify that the defendant is honest).

262. *Piccinonna*, 729 F. Supp. at 1338–1339 (Johnson, J., concurring in part and dissenting in part).

263. *Id*.

Ramos,[264] where the court denied a retroactive application of *Piccinonna*. More importantly, *Ramos* reiterated the interaction between Federal Rule of Evidence 608 and *Piccinonna*.[265] Pursuant to Federal Rule of Evidence 608, polygraph evidence may not be admitted to bolster the defendant's credibility until after his or her character for truthfulness is attacked.[266] In *Ramos*, the defendant was convicted in the Southern District of Florida for possession of cocaine with intent to distribute the narcotic.[267] On appeal, Ramos sought a new trial, because the per se ban against polygraph evidence was in effect during his prior trial, and he wanted to introduce exculpatory polygraph evidence under the new rule.[268] The Eleventh Circuit denied the appeal, but reiterated that polygraph evidence may be introduced only after a witness's credibility is attacked.[269]

Thus, the opponent should argue that a polygraph test, focused on a specific issue, cannot provide the witness with an adequate basis to testify to the defendant's truthful character. Although *Piccinonna* indicates that one polygraph is insufficient to form a basis for this opinion,[270] an advocate may raise the education concerns addressed in the Federal Rule of Evidence 702 objection and cast doubt on a proposed opinion that will be based on several polygraph examinations. It is imperative to note that the Eleventh Circuit had an opportunity to address how polygraph evidence and Federal Rule of Evidence 608 interact in *Gilliard*, but chose not to answer the question.[271] This may indicate that the court does not understand how this Rule and evidence will interact.

C. Federal Rule of Evidence 403: Exclusion of Relevant Evidence on Grounds of Prejudice, Confusion, or Waste of Time

Case law demonstrates that Federal Rule of Evidence 403 is the most effective objection to prohibit polygraph evidence at trial.[272]

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264. 933 F.2d 968 (11th Cir. 1991).
265. *Id*. at 976.
266. *Id*.
267. *Id*. at 971.
268. *Id*.
269. *Id.* at 976.
270. 729 F. Supp. at 1338–1339 (Johnson, J., concurring in part and dissenting in part).
271. 133 F.3d at 812.
272. *Id*.; *Piccinonna*, 729 F. Supp. at 1336; *Pinter*, 969 F. Supp. at 1246. In each case, advocates excluded polygraph evidence after making a Federal Rule of Evidence 403 objection.

However, it is most effective when made after arguing Rules 702 and 608. It is not the failure of objections based on Rules 702 and 608 that is significant, but the legal complexity of the argument made outside the presence of the jury. Federal Rule of Evidence 403 provides,

> Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger or unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.[273]

First, a polygraph examination is not a "lie detector."[274] The slang reference implies that the polygraph examiner will be able to tell when the subject is lying. But, as already stated, polygraphists agree that they are unable to detect "lies."[275] The polygraph examination's function is to determine when the examinee is telling the whole truth or something less than the truth.[276] Consequently, if there is any probative value to polygraph evidence, it will be outweighed substantially by the prejudicial effect it would have on the jury, because the jury would take it to be a lie detector. Jurors would assume that if the defendant took a lie detector and passed, then the defendant must not be guilty.

Second, presenting polygraph evidence would confuse and mislead the jury regarding the issues it is impaneled to decide.[277] Because polygraph evidence is presented only through expert testimony, the opponent will have an opportunity to voir dire the "expert."[278] The jury's attention will be diverted from determining the issue of guilt or innocence to determining the scientific validity of polygraph evidence.

In *Gilliard*, the court noted,

> Although the actual number of hours and minutes it would take to put on expert testimony should not ordinarily be a controlling factor, a court may consider whether the amount of time needed

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273. Fed. R. Evid. 403.
274. Ferguson & Miller, *supra* n. 6, at 7, 9–10.
275. *Id*.
276. *Id*.
277. *U.S. v. Kwong*, 69 F.3d 663, 668 (2d Cir. 1995); *U.S. v. Sherlin*, 67 F.3d 1208, 1217 (6th Cir. 1995) (noting concern that polygraph evidence, by its very nature, may confuse and mislead the jury and thereby warrants exclusion).
278. Ferguson & Miller, *supra* n. 6, at 9–10.

> to present the evidence would shift the focus of a criminal trial from determining guilt or innocence to determin[ing] the validity of the scientific method at issue.[279]

In *Gilliard*, the *Daubert* hearing concerning polygraph evidence lasted over eight hours.[280] During that hearing, certain stipulations were made to assist the court.[281] However, the parties were not willing to make the same stipulations at trial.[282] Ultimately, the *Gilliard* court determined that presenting and fully explaining polygraph evidence would take an additional one-half to two days of expert testimony.[283] Furthermore, the *Gilliard* court was concerned that only certain questions were relevant to a few of the defendant's charges.[284]

The key to bolstering this objection is to have raised a Federal Rule of Evidence 702 objection already. Because federal judges have the opportunity to review memoranda in support and opposition to polygraph evidence, the judge already has performed the *Daubert* analysis and understands the technicalities underlying polygraph evidence. Only after hearing oral arguments does a judge decide to exclude or include polygraph evidence. Effectively demonstrating to the judge that the jury will not have the same opportunity to weigh the evidence assists in bolstering the Federal Rule of Evidence 403 objection.

Finally, the opponent may object to the polygraph evidence usurping the role of the jury. Studies indicate that jurors are more likely to change their verdict when contrary polygraph evidence is presented.[285] Specifically, one study revealed that more than half of the jurors changed a not guilty vote to a vote of guilty after the prosecution introduced the defendant's polygraph examination results.[286] "American jur[ies] can turn [their] face[s] from other evidence and allow [themselves] to be guided by the verdict of the polygraph."[287]

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279. 133 F.3d at 815.
280. *Id*.
281. *Id*.
282. *Id.* at 812.
283. *Id*. at 815.
284. *Id.* at 816.
285. Honts & Quick, *supra* n. 53, at 1016 (reporting studies the authors and their colleagues have conducted); *see Galbreth*, 908 F. Supp. at 892 (citing these studies, but without analysis, and indicating why the court found them reliable).
286. Lykken, *supra* n. 31, at 263–264.
287. *Id*. David T. Lykken discusses cases where juries returned verdicts based on polygraph results and not evidence adduced at trial.

Although it is presumed that juries will follow limiting instructions, curative instructions are not always adequate.[288] This is especially true when an impermissible reference is made to polygraph evidence. An instruction to disregard or unring the proverbial bell, simply cannot cure the damage that has been done.[289] The obvious danger is that jurors will not follow the law by returning a verdict that the evidence and facts support, but give great weight and deference to polygraph evidence and return a verdict conforming with that testimony.

United States v. Brevard[290] is an example of the devastating effect that references to polygraph evidence may have.[291] There, FBI agents made several references to the defendant taking a polygraph examination.[292] The court determined that the jury impermissibly used the information to convict the defendant.[293] Although curative instructions were given, they were not sufficient to remedy any negative influence.[294]

When considering if a curative instruction can remedy an impermissible reference to polygraph evidence, the court must consider, "(1) whether an inference about the result of the test may be critical in assessing the witness's credibility, and (2) whether the witness's credibility is vital to the case."[295] The likelihood of misuse increases when the reference pertains to the defendant.[296]

Thus, after arguing objections based on Rules 702 and 608, the opponent should argue for exclusion of the evidence under Federal Rule of Evidence 403. After arguing Rules 702 and 608, the lack of probative value should be clear to the court. With the lack of probative value established, the advocate should point out the danger of unfair prejudice that the polygraph evidence is likely to cause the defendant or the evidence's potential to mislead the jury. By showing that polygraph evidence's probative value is outweighed substantially by the potential of creating an unfair trial, the evidence should be excluded.

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288. *Brevard*, 739 F.2d at 182.
289. *Id*.
290. 739 F.2d 180 (4th Cir. 1984).
291. *Id*. at 183.
292. *Id*. at 182.
293. *Id*. at 182–183.
294. *Id.*
295. *Id*. at 183 (citing *State v. Edwards*, 412 A.2d 983, 985 (Me. 1980)).
296. *Id.*

IV. CONCLUSION

Polygraph evidence should be excluded from jurors' consideration. Although polygraph evidence is being admitted more frequently in federal criminal court proceedings, it has entered the legal arena, because judges seem to misunderstand the science behind polygraph examinations. When one considers the decisions to date, it is evident that courts have trouble understanding the connection between *Daubert*, the federal rules of evidence, and polygraph science.

Given the cases presented, the lack of uniform education guidelines and regulatory authorities, complexity of interpreting autonomic response systems, and the scientific uncertainty of studies performed, it becomes obvious why this method of determining if someone is telling the truth is no better than that child's game where a blindfolded player must pin the tail on the donkey. Polygraph evidence should be excluded from trial, and the Eleventh Circuit should return to its per se ban on its admissibility.

The vehicle to accomplish this rests with skilled trial and appellate advocates. Despite the lack of a per se ban, utilizing facts concerning polygraph evidence and the language of the evidentiary rules, advocates should be able to exclude polygraph evidence at trial successfully. Only after trial courts consistently exclude this evidence will the appellate courts revisit their decisions concerning the per se ban.