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Expert Testimony

Barry C. Scheck

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EXPERT TESTIMONY

Hon. George C. Pratt:

With that thought out, we will pass on to our next speaker, Professor Barry Scheck from Cardozo Law School. He is going to take up the subject of expert testimony. Barry.

Professor Barry C. Scheck:*

I. RAPE SHIELD LAWS: NOTICE PROVISIONS

Before I take up the law of experts in twenty-plus minutes, I would note that one of the things that has always bothered me about the Rape Shield Laws¹ is not the substance, but the notice

* Professor of Law and Director of Clinical Legal Education, Benjamin N. Cardozo School of Law. B.S., 1971, Yale University; J.D., 1974, University of California at Berkeley. The Author, along with co-counsel Peter Neufeld, is co-chair of the DNA Task Force of the National Association of Criminal Defense Lawyers and worked as counsel of record or advisor on a number of DNA cases, including *People v. Castro*, *People v. Keene*, and *United States v. Bonds*. His most recent article was published in the Cardozo Law Review and is entitled *DNA and Daubert*. Most recently, this Author has joined the defense team for the O.J. Simpson murder trial.

1. The Rape Shield Laws are encompassed within the Federal Rules of Evidence and the New York Criminal Procedure Law. *See* FED. R. EVID. 412. Rule 412 provides in relevant part:

- (a) Notwithstanding any other provision of law, in a criminal case in which a person is accused of [rape or of assault with the intent to commit rape], reputation or opinion evidence of the past sexual behavior of an alleged victim of such [rape or assault] is not admissible.
- (b) Notwithstanding any other provision of law, in a criminal case in which a person is accused of [rape or of assault with the intent to commit rape], evidence of a victim's past sexual behavior other than reputation or opinion evidence is also not admissible, unless such evidence other than reputation or opinion evidence is—
 - (1) admitted in accordance with subdivisions (c)(1) and (c)(2) and is constitutionally required to be admitted; or
 - (2) admitted in accordance with subdivision (c) and is evidence of—
 - (A) past sexual behavior with persons other than the accused, offered by the accused upon the issue of whether the accused

provisions.² I think one of the most distressing cases out of the United States Supreme Court was *Taylor v. Illinois*,³ which had

was or was not, with respect to the alleged victim, the source of semen or injury; or

- (B) past sexual behavior with the accused and is offered by the accused upon the issue of whether the alleged victim consented to the sexual behavior with respect to which [rape or assault] is alleged.

Id. Subsequent to this Symposium, Rule 412 was amended on September 7, 1994; *see also* N.Y. CRIM. PROC. LAW § 60.42 (McKinney 1992). Section 60.42 states:

Evidence of a victim's sexual conduct shall not be admissible in a prosecution for an offense or an attempt to commit an offense defined in article one hundred thirty of the penal law unless such evidence:

1. proves or tends to prove specific instances of the victim's prior sexual conduct with the accused; or
2. proves or tends to prove that the victim has been convicted of an offense under section 230.00 of the penal law within three years prior to the sex offense which is the subject of the prosecution; or
3. rebuts evidence introduced by the people of the victim's failure to engage in sexual intercourse, deviate sexual intercourse or sexual contact during a given period of time; or
4. rebuts evidence introduced by the people which proves or tends to prove that the accused is the cause of pregnancy or disease of the victim, or the source of semen found in the victim; or
5. is determined by the court after an offer of proof by the accused outside the hearing of the jury, or such hearing as the court may require, and a statement by the court of its findings of fact essential to its determination, to be relevant and admissible in the interests of justice.

Id.

2. *See* FED. R. EVID. 412(c). Section (c)(1) provides in part:

If the person accused of committing [rape or assault with intent to commit rape] intends to offer . . . evidence of specific instances of the alleged victim's past sexual behavior, the accused shall make a written motion to offer such evidence not later than fifteen days before the date on which the trial in which such evidence is to be offered is scheduled to begin

Id.; N.Y. CRIM. PROC. LAW § 60.42. New York does not contain a notice provision in its rape shield law; *see also* Deborah Stavile Bartel, *A Comparison of the Federal and New York State Rape Shield Statutes*, 11 TOURO L. REV. 73 (1994). Professor Bartel explains that the New York Rape Shield Law has no notice provision, which is unlike the Federal Rape Shield Law.

3. 484 U.S. 400 (1987).

to do with notice provisions and alibi statutes.⁴ That was what Deborah was talking about⁵ with respect to *Michigan v. Lucas*.⁶ The issue in *Lucas* was remanded with respect to whether or not the attorney purposefully waited until the last minute to give notice about an exception to the Rape Shield Law.⁷

Now, this issue also arose in the Mike Tyson case.⁸ In this case, Tyson was trying to introduce evidence that there had been prior sexual contact with Desiree Washington on the day of the Miss Black America beauty pageant in Indianapolis where they were seen necking with each other.⁹ Dershowitz,¹⁰ Tyson's attorney, raised a federal constitutional claim based on the exclusion of defense witnesses' testimony when he failed to

4. *Id.* at 413-16 n.21. The Supreme Court explained in *Taylor* that the Compulsory Process Clause of the Sixth Amendment was not violated where the trial court refused to allow a defense witness to testify before the jury as a sanction for failure to identify the witness in response to a pretrial discovery request. *Id.*

5. Bartel, *supra* note 2, at 80-82.

6. 500 U.S. 145, 152 (1991) (holding that the Sixth Amendment was not necessarily violated by precluding evidence of defendant's own past sexual conduct with the victim on the grounds that the defendant failed to comply with the notice requirements of Michigan's Rape Shield Law).

7. *People v. Lucas*, __ N.W.2d __ (Mich. July 6, 1994) (text not available).

8. *Tyson v. State*, 619 N.E.2d 276 (Ind. 1993), *cert. denied*, 114 S. Ct. 1216 (1994). The court held that although the defense team did not engage in "blatant and deliberate misconduct or bad faith" by delaying its notification to the state of its potential witnesses, the trial court properly barred these witnesses from testifying because the delay was excessive and the defense had knowledge of the witnesses two days prior to notifying the state. *Id.* at 282.

9. *Id.* at 286 (asserting that three witnesses had seen a female with "prominent hair" and Tyson exit the limousine and enter the hotel together). See Ira Berkow, *Tyson Defense Goes to Court for Reversal of Conviction*, N.Y. TIMES, Feb. 16, 1993, at B9, B11. Alan Dershowitz, Tyson's attorney, argued that the trial judge "unfairly excluded three witnesses . . . who had seen Tyson and Washington 'necking' in Tyson's limousine on the morning of July 19, 1992." *Id.*

10. Alan Morton Dershowitz received his law degree at Yale University in 1962. Alan Dershowitz is currently a criminal law Professor at Harvard Law School.

comply with the notice provision.¹¹ However, the Indiana Supreme Court split two - two and never reached the issue,¹² because Dershowitz wound up talking with the wife of an Indiana Supreme Court judge at a Yale Law School reunion.¹³ The United States Supreme Court denied certiorari.¹⁴ So, we will never know the answer to that question.

With respect to *Taylor*,¹⁵ the Supreme Court held that evidence of an alibi can be precluded if, for purposes of strategic advantage, the lawyer, without knowledge to the defendant, failed to comply with the notice provisions.¹⁶ The same theory

11. *Tyson*, 619 N.E.2d at 288-89. Dershowitz argued that the trial court violated the Confrontation Clause by excluding evidence "regarding incidents between [Desiree Washington] . . . and her parents which allegedly would have shown that [Desiree Washington] . . . had 'a powerful and secret motive' to fabricate the rape charge and would have exposed an alternative explanation for the psychological problems experienced by [Desiree Washington] . . . following the . . . incident." *Id.*

12. *See Tyson v. Indiana*, 622 N.E.2d 457 (Ind. 1992). The Chief Justice of the Indiana Supreme Court decided to recuse himself from hearing Tyson's appeal after he learned that his wife had given innocuous advice to Alan Dershowitz. *Id.* at 458-59.

13. *Id. See Judge Disqualified*, N.Y. TIMES, Oct. 17, 1993, at 8 (stating that Chief Justice Randall Shepard of the Indiana Supreme Court denied Tyson's request to reverse his recusal).

14. *Tyson*, 619 N.E.2d 276 (Ind. 1993), *cert. denied*, 114 S. Ct. 1216 (1994).

15. *Taylor v. Illinois*, 484 U.S. 400 (1988). *Taylor* involved a discovery violation whereby petitioner's answer to a discovery motion requesting a list of defense witnesses failed to list a witness who later testified at trial. *Id.* at 404-05. The Supreme Court held that where the discovery violation occurred, preclusion of the witness' testimony was an acceptable sanction. *Id.* at 414.

16. *Id.* The Supreme Court held that since the "violations were designed to conceal a plan to present fabricated testimony," it was acceptable to preclude evidence where there was a discovery violation. *Id.* Furthermore, the Court held that "it would be entirely appropriate to exclude the tainted evidence regardless of whether other sanctions would also be merited." *Id.* The Court explained that:

It may well be true that alternative sanctions are adequate and appropriate in most cases, but it is equally clear that they would be less effective than the preclusion sanction and that there are instances in which they would perpetuate rather than limit the prejudice to the State and the harm to the adversary process.

would apply theoretically in a Rape Shield case, if, for purposes of strategic advantage, defendant's lawyer withheld notice without his or her client's knowledge. It will be the client who is punished and who will be unable to introduce evidence of innocence.¹⁷

Justice Brennan's dissent in *Taylor* stated that in those instances where the lawyer has failed to follow the notice provision, it is the lawyer who should be sanctioned while the client should receive a new trial to determine his or her innocence.¹⁸ After all, if you have evidence of an alibi which is evidence of innocence, it seems to me that because your lawyer engaged in sharp practice, the client should not be punished.¹⁹ I have always been distressed about that decision.

II. EXPERT TESTIMONY

A. Ultimate Issue: Rule 704

If you look at the differences between federal and state law with respect to expert testimony, there are a few important distinctions. One of the more interesting rules is Federal Rule of Evidence 704,²⁰ which pertains to the ultimate issue. In the

Id. at 413-14.

17. *See* *United States v. Eagle Thunder*, 893 F.2d 950, 954 (8th Cir. 1990) (ruling that the attorney's failure to file a written notice of intent under Rule 412(c)(1) was alone sufficient to deny order of proof in prosecution for forcible rape); *United States v. Provost*, 875 F.2d 172, 177 (8th Cir.) (barring the defendant from offering a statement made by the victim because the attorney failed to give fifteen days notice), *cert. denied*, 493 U.S. 859 (1989).

18. *Taylor*, 484 U.S. at 436 (Brennan, J., dissenting). Justice Brennan asserted that "absent evidence that the defendant was responsible for the discovery violation, the exclusion of criminal defense evidence is arbitrary and disproportionate to the purposes of discovery. . . ." *Id.* (Brennan, J., dissenting).

19. *Id.* at 431 (Brennan, J., dissenting). Justice Brennan explained that "the arbitrary and disproportionate nature of the preclusion sanction is highlighted where the penalty falls on the defendant even though he bore no responsibility for the discovery violation." *Id.* (Brennan, J., dissenting).

20. FED. R. EVID. 704. Rule 704 states that:

federal courts, an expert can testify to the ultimate issue if the expert testimony is otherwise admissible,²¹ except in cases of insanity or in cases where the mental condition of the defendant is an element of the defense.²² This is the so-called John Hinckley Jr. exception.²³ After Hinckley was acquitted by reason of insanity,²⁴ Congress passed a statute and Rule 704 was amended so that psychiatrists could only testify about the nature of the psychiatric disorder and not about an opinion with respect to the mental state of the defendant since this would be the

(a) Except as provided in subdivision (b), testimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact.

(b) No expert witness testifying with respect to the mental state or condition of a defendant in a criminal case may state an opinion or inference as to whether the defendant did or did not have the mental state or condition constituting an element of the crime charged or of a defense thereto. Such ultimate issues are matters for the trier of fact alone.

Id.

21. *Id. See, e.g.,* Hanson v. Waller, LVL, Inc., 888 F.2d 806, 811 (11th Cir. 1989) (upholding testimony of a police officer who testified as a reconstruction expert with regard to an accident because his testimony was a proper opinion going to the ultimate issue); United States v. Theodoropoulos, 866 F.2d 587, 591 (3d Cir. 1989) (stating that it is not a valid objection that the expert's "conclusions pertain to an ultimate issue in the case"); United States v. Sessa, 806 F. Supp. 1063, 1066 (E.D.N.Y. 1992) (stating that it was not sensible to preclude expert testimony on a question of fact, on the grounds that the testimony went to the very issue before the jury).

22. FED. R. EVID. 704(b), *supra* note 20. *See, e.g.,* United States v. Manley, 893 F.2d 1221, 1223 (11th Cir. 1990) ("Rule 704 was not amended, however, to eclipse the experts' role in enabling defendants to raise the insanity defense.").

23. *See* Henry T. Miller, *Recent Changes in Criminal Law: The Federal Insanity Defense*, 46 LA. L. REV. 337, 349 (1985-86) (adducing legislative history to suggest the new standard defining criminal insanity, otherwise known as the John Hinckley exception, should reduce the scope of expert testimony as well as the scope of what constitutes legal insanity).

24. *See* United States v. Cameron, 907 F.2d 1051, 1061 (11th Cir. 1990) ("The Insanity Defense Reform Act was passed in the wake of John Hinckley's acquittal of charges arising from his actions in shooting President Ronald Reagan and Press Secretary James Brady.").

“ultimate issue” which are matters for the trier of fact.²⁵ In New York State, everything is the opposite.²⁶ That is to say, an expert cannot testify to the ultimate issue except in insanity cases.²⁷

B. Rule 703

With respect to the other rules of evidence, the rule of thumb for those of us who practice in both federal and state courts is this: If you are in the federal court everything is coming in, but if you are in the state court not so much of it is coming in. With respect to expert testimony, even though for some of these rules you will see that the linguistics sound the same, when you actually examine the decisions and the behavior of courts, on the state and the federal level, things are sort of different.

25. Congress had amended the Federal Rules of Evidence to reduce the use of expert testimony with regard to the insanity defense. FED. R. EVID. 704(b), *supra* note 20. *See Cameron*, 907 F.2d at 1062 (“Congress was concerned about the danger that expert psychiatric testimony regarding inherently malleable psychological concepts can be misused at trial to mislead or confuse the jury.”).

26. *See* N.Y. CRIM. PROC. LAW §60.55(1) (McKinney 1992). Section 60.55(1) provides:

When, in connection with the affirmative defense of lack of criminal responsibility by reason of mental disease or defect, a psychiatrist or licensed psychologist testifies at a trial concerning the defendant’s mental condition at the time of the conduct charged to constitute a crime, he must be permitted to make a statement as to the nature of any examination of the defendant, the diagnosis of the mental condition of the defendant and *his opinion as to the extent, if any, to which the capacity of the defendant to know or appreciate the nature and consequence of such conduct, or its wrongfulness, was impaired as a result of mental disease or defect at that time.*

Id. (emphasis added); *see also* *People v. Stone*, 35 N.Y.2d 69, 75-76, 315 N.E.2d 787, 791, 358 N.Y.S.2d 737, 742. The New York Court of Appeals had observed that Criminal Procedure Law section 60.55 “represents a legislative recognition of the importance of adequate psychiatric opinion,” and permits a psychiatrist’s expert opinion to be admitted “where the opinion is substantially, though not exclusively, based upon observation and examination of the defendant and the facts in evidence.” *Id.*

27. *See, e.g.,* *People v. Weinstein*, 156 Misc. 2d 34, 39, 591 N.Y.S.2d 715, 720 (Sup. Ct. N.Y. County 1992) (recognizing that insanity cases are cases where experts may testify to the ultimate issue).

First, on the subject of expert testimony, in federal court the expert opinion testimony will be relevant and admissible if it is helpful.²⁸ In the state court, however, the phrase will sometimes be used, “if it is otherwise beyond the ken of the jury.”²⁹ Now, what is the difference between “helpful” and “beyond the ken of the jury”? I do not know linguistically whether it is that much, but you will see that the state courts will sometimes explain that it is not beyond the ken of the jury and thus keep the expert out. One would not find that result in the federal courts.³⁰

Rule 703 of the Federal Rules of Evidence³¹ is particularly important in this regard. Rule 703 states that otherwise inadmissible evidence, such as hearsay or other kinds of inadmissible evidence, can be admitted when an expert is testifying as to the basis of his or her opinion if, under Rule 703, it is reasonably relied upon by experts in the field.³²

28. See FED. R. EVID. 702 advisory committee's notes. “Whether the situation is a proper one for the use of expert [opinion] testimony is to be determined on the basis of assisting the trier [of fact].” *Id.*; *The Keds Corp. v. Goldstreet Holdings, Inc.*, No. 92-56221, 1994 U.S. App. LEXIS 3188 (9th Cir. Feb. 18, 1994) (“Generally, expert opinion testimony is admissible if it is ‘helpful to the trier of facts.’”).

29. See, e.g., *People v. Cronin*, 60 N.Y.2d 430, 433, 458 N.E.2d 351, 353, 470 N.Y.S.2d 110, 112 (1983) (stating that the combined impact on a person's mental state or ability to act purposefully from a case of beer, marihuana and valium “cannot be said as a matter of law to be within the ken of the typical juror”); see WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 658 (1991) (defining ‘ken’ as the range of perception, understanding or knowledge).

30. See, e.g., *United States v. Tapia-Ortiz*, 23 F.3d 738 (2d Cir. 1994). In *Tapia-Ortiz*, the Second Circuit held that testimony concerning “the weight, purity, dosages, and prices of cocaine clearly relates to knowledge beyond the ken of the average juror” and thus within the bounds of acceptable use of expert testimony. *Id.* at 741.

31. FED. R. EVID. 703. This rule states that:

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

Id.

32. *Id.*

For a long time in New York there was a rule that experts could not testify about hearsay.³³ This rule was modified to allow an expert witness to testify as to what material he or she used as a basis of his or her expert opinion.³⁴ This was further modified in *People v. Sugden*.³⁵ Linguistically, the rule was that an expert could testify to the basis of his or her opinion if it was the kind of information that experts in that field regarded as reliable.³⁶ It should be noted that the word “reliable” was used.

Now, is there a difference linguistically between an expert reasonably relying upon something if it is the kind of data that is reasonably relied upon in an expert’s field, and something that is considered reliable for experts in this field to rely upon? I do not know. When one begins to look at the cases, one will find that in

33. See *People v. Strait*, 148 N.Y. 566, 42 N.E. 1045 (1896). In *Strait*, the New York Court of Appeals held that the doctor should not have been sworn in as an expert witness. *Id.* at 569, 42 N.E. at 1045. “The witness was an expert on the diseases of the mind, but he was not an expert on determining the facts, where such facts had to be obtained from the statements of others.” *Id.* at 570, 42 N.E. at 1046. The court relied on the fact that “a medical witness must give the facts on which his opinion is founded in connection with his opinion. If those facts necessarily include information given him by the attendants of the patient, his opinion is not competent, for those communications are hearsay.” *Id.* (citation omitted).

34. *People v. DiPiazza*, 24 N.Y.2d 342, 248 N.E.2d 412, 300 N.Y.S.2d 545 (1969). The New York Court of Appeals determined that section 4515 of the Civil Practice Law and Rules then allowed an expert witness to testify without specifying the data upon which his or her opinion is based, with the requirement that such data may be required to be revealed upon cross-examination of the expert. *Id.* at 351, 248 N.E.2d at 417, 300 N.Y.S.2d at 552.

35. 35 N.Y.2d 453, 323 N.E.2d 169, 363 N.Y.S.2d 923 (1974). An expert “may rely on material, albeit of out-of-court origin, if it is of a kind accepted in the profession as reliable in forming a professional opinion.” *Id.* at 460, 323 N.E.2d at 173, 363 N.Y.S.2d at 929. The expert “may also rely on material, which if it does not qualify under the professional test, comes from a witness subject to full cross-examination on the trial.” *Id.* at 461, 323 N.E.2d at 173, 363 N.Y.S.2d at 929.

36. *Id.* at 461, 323 N.E.2d at 172, 363 N.Y.S.2d at 929. It is additionally important that the expert witness distinguish between what part of his outside investigation he relied on in forming his opinion and upon what part he did not rely. *Id.*

New York things will be kept out that would otherwise come right in in federal courts.

There is one New York Court of Appeals case, *Hamsch v. New York City Transit Authority*,³⁷ where a doctor testified as to the basis of his opinion based solely on statements made by the plaintiff's radiologist.³⁸ However, the radiologist's conclusions were based on a study whereby the underlying facts of the study were not known by the radiologist.³⁹ The New York Court of Appeals excluded this testimony stating that this was not something it would call a reliable basis for the expert opinion.⁴⁰

There is some sign in theory that the decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*⁴¹ affects Rule 703 of the

37. 63 N.Y.2d 723, 469 N.E.2d 516, 480 N.Y.S.2d 195 (1984).

38. *Id.* at 725, 469 N.E.2d at 517, 480 N.Y.S.2d at 196. Plaintiff's physician, in order to establish that the plaintiff had suffered a serious injury based on a fracture, testified that she was "suffering from spondylolisthesis, a misalignment of the vertebra." *Id.* The physician made this diagnosis after speaking with a radiologist two days before trial. *Id.*

39. *Id.* The radiologist believed that the plaintiff was suffering from spondylolisthesis because of a study which was unknown, and in which he did not participate. *Id.*

40. *Id.* The court determined that the physician's testimony was inadmissible because it was based on out-of-court material which did not meet the "professional reliability" standard, as it was not "of a kind accepted in the profession as reliable in forming a professional opinion." *Id.* at 726, 469 N.E.2d at 518, 480 N.Y.S.2d at 197. The New York Court of Appeals affirmed the Appellate Division, Second Department, holding that because the plaintiff failed to present evidence "establishing the reliability of the out-of-court material," the opinion of the physician was inadmissible. *Id.*

41. 113 S. Ct. 2786 (1993). In *Daubert*, the Supreme Court addressed the issue of the proper standard for admitting expert testimony. *Id.* at 2792. The Court held that "the *Frye* test was superseded by the adoption of the Federal Rules of Evidence." *Id.* at 2793. The Court noted that *Frye*'s requirement that there be a general acceptance requirement "would be at odds with the 'liberal thrust' of the Federal Rules and their 'general approach of relaxing the traditional barriers to 'opinion' testimony.'" *Id.* at 2794 (citation omitted). Where the expert testimony relates to scientific evidence, the Supreme Court held that a trial judge must look to whether "the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue." *Id.* at 2796. The Court concluded that:

Federal Rules of Evidence, although the only place that I can find it is yet another troubling case, *United States v. Locascio*,⁴² or what one would otherwise know as the John Gotti case.⁴³

In the Gotti case, an FBI agent got on the witness stand and testified. In order to get the full effect, you had to walk into the courtroom to see it. That was what really made it special. If you walked into Judge Glasser's courtroom in the Eastern District, you would see a series of photographs; each picture of an individual being about four feet high. There was also a poster that went to just about the ceiling of the courtroom that represented the structure of the crime family.⁴⁴

“‘[G]eneral acceptance’ is not a necessary precondition to the admissibility of scientific evidence under the Federal Rules of Evidence - - especially Rule 702 - - [and] do assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.”

Id. at 2799.

42. 6 F.3d 924, 938 (2d Cir. 1993) (“Although *Daubert* involved Rule 702 and scientific evidence, the flexibility of the federal rules also applies to Rule 703 and the determination of the trustworthiness of the sources of expert testimony. The district court has broad discretion to decide the admissibility of expert testimony based on inadmissible evidence.”), *cert. denied*, *Gotti v. United States*, 114 S. Ct. 1645 (1994).

The Second Circuit in *Locascio* addressed the issue as to whether an expert can testify to the nature and “function of organized crime families.” *Id.* at 936. The court noted that there have been previous cases which have upheld the use of expert testimony with regard to organized crime families. *Id.* The court explained that “it is still a reasonable assumption that jurors are not well versed in the structure and methods of organized crime families.” *Id.* at 937. The court also held that the expert was qualified to testify based on his extensive background with the FBI. *Id.* The court finally held that a trial judge need not specifically make a trustworthiness finding as to “the admissibility of expert testimony based on inadmissible evidence.” *Id.* at 938.

43. *Id.* at 929. John Gotti and Frank Locascio were both tried and convicted as co-defendants for violating the Racketeer Influenced Corrupt Organizations Act, which “stemmed from their involvement with the Gambino Crime Family of La Cosa Nostra . . .” *Id.*

44. See generally Robert J. Anello, *In With the Old, In with the New: Charts and Diagrams Still Do the Job in Court*, 209 N.Y. L.J. S-1 (Feb. 16, 1993). In general, the trial judge has the discretion to determine if demonstrative evidence will be admissible at trial. *Id.* “Courts have become increasingly liberal in permitting use of visual aids.” *Id.*

The expert in this case testified that Gotti was the head of the crime family and Sammy the Bull was second in charge.⁴⁵ An expert also testified that people at the upper echelons of the crime family are the only people that can authorize a murder⁴⁶ and thus, if these people were murdered, that meant that Gotti authorized it.⁴⁷ Now, it is not particularly surprising to see an expert in an organized crime case or in a narcotics distribution case take the stand and explain street jargon⁴⁸ or explain in theory this is how a narcotics operation ordinarily runs; or even in an ordinary small street sale that this is a runner, that this is the person who stands by and is the source, and would testify, generally speaking, to the structure. Then, from this testimony, the jury could apply it to the facts of the case.

However, the Second Circuit, in *United States v. Brown*,⁴⁹ placed certain limitations where an expert could not go too far and literally usurp the function of the jury.⁵⁰ Therefore, what

45. *United States v. Gambino*, 835 F. Supp. 74 (E.D.N.Y. 1993). In *Gambino*, Special FBI Agent Gabriel "identified John Gotti as the Boss of the Gambino Organized Crime Family, George Remini as a made member in that family, Tommy Debrizzi as an acting captain in the Gambino Family and Tommy Bilotti as the underboss of the Gambino Family." *Id.* at 77.

46. *Locascio*, 6 F.3d at 936. Special Agent Schiliro "testified that a 'boss' must approve all illegal activity and especially all murders, and that the functions of the 'consigliere' and 'underboss' are only 'advisory' to the 'boss.'" *Id.*

47. *Id.* During Agent Schiliro's testimony, "Schiliro specifically named John Gotti as the boss of the alleged Gambino Family" *Id.*

48. *See United States v. Skowronski*, 968 F.2d 242, 246 (2d Cir. 1992) (upholding expert testimony of government agents for the purpose of explaining organized crime jargon); *see also United States v. Angiulo*, 847 F.2d 956, 973-75 (1st Cir.) (upholding testimony of an agent who testified about the structure of organized crime families), *cert. denied*, 488 U.S. 928 (1988); *United States v. Daly*, 842 F.2d 1380, 1387-88 (2d Cir.) (explaining that the expert testimony was relevant for the jury to understand the nature and structure of organized crime families), *cert. denied*, 488 U.S. 821 (1988).

49. 776 F.2d 397, 401 (2d Cir. 1985), *cert. denied*, 475 U.S. 1141 (1986).

50. *Id.* at 400-01. In *Brown*, the Second Circuit recognized that Federal Rule of Evidence 704(a) abolished the "ultimate issue" rule which excluded expert testimony "because it embraces an ultimate issue to be decided by the trier of fact." *Id.* at 400 n.3. On this point, however, the court further stated

was going on arguably in the *Locascio* case was disturbing because the expert was able to testify as to the structure of the organized crime family and some of the other details in terms of interpreting tapes admittedly based on information that came from unknown informants that were not going to ever be revealed before the court.⁵¹ The expert testimony was then challenged in a number of ways. The defense explained that he was not really an expert in linguistics, nor in sound since he could not interpret tapes.⁵² It seems to me that the more important question the Second Circuit examined was whether *Daubert* stated that “reasonably relied” upon by experts in the field, under Federal Rules of Evidence 703, means “reliable” too.⁵³

that district judges should follow the Advisory Committee’s Note to Rule 704 in determining whether to limit expert testimony:

The abolition of the ultimate issue rule does not lower the bars so as to admit all opinions. Under Rules 701 and 702, opinions must be helpful to the trier of fact, and Rule 403 provides for exclusion of evidence which wastes time. These provisions afford ample assurances against the admission of opinions which would merely tell the jury what result to reach, somewhat in the manner of the oath-helpers of an earlier day.

Id. at 401.

51. *Locascio*, 6 F.3d at 936-37. An issue that arose in *Locascio* was whether prosecutor’s witness could qualify as an expert “to interpret tapes or give his opinion on the Gambino Family structure.” *Id.*

52. *Id.* Gotti and *Locascio* argued that since the expert was not properly qualified as an expert in the areas of linguistics, sociology of crime, voice analysis or tape recording technology, “he was not qualified to interpret tapes or give his opinion on the Gambino Family structure.” *Id.*

53. *Id.* at 938. The Second Circuit in *Locascio* admitted expert testimony under Rule 703 on matters concerning the structure and function of organized crime families “since there is little question that law enforcement agents routinely and reasonably relied upon such hearsay in the course of their duties.” The Second Circuit was in essence combining the meaning of “reasonably relied upon” and “reliable” with respect to the expert testimony of Agent Schiliro since he is “assumed ‘to have the skill to properly evaluate the hearsay’” *Id.* (citation omitted).

The connection between reliability and reasonably relied upon in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* is derived from the following language:

Unlike an ordinary witness, see Rule 701, an expert is permitted wide latitude to offer opinions, including those that are not based on first-hand knowledge or observation. . . . Presumably, this relaxation of the usual requirement of first-hand knowledge--a rule which represents “a

The question then becomes, whether this expert can testify in the *Locascio* case and will his testimony be reliable, even though it is presumed that he is testifying on the basis of unknown individuals who are afraid to come forward to speak.⁵⁴ In addition, the expert may not be subjected to cross-examination or investigation.⁵⁵ That, to me, is really pushing it. It is the kind of thing that sometimes happens when you have defendants of this kind of notoriety.

Theoretically, the *Locascio* court interpreted *Daubert* to mean that when examining evidence, it is inconsequential whether experts in that field always use similar evidence as a basis for expert opinions.⁵⁶ If that is not reliable then it is not proper scientific knowledge and it still might be kept out. Which leads me, of course, to Federal Rule of Evidence 702⁵⁷ and the *Daubert* case itself.

most pervasive manifestation' of the common law insistence upon 'the most reliable sources of information.'" Advisory Committee's Notes on Fed. Rule of Evid. 602 (citation omitted) is premised on an assumption that the expert's opinion will have a reliable basis in the knowledge and experience of his discipline.

Daubert v. Merrell Dow Pharmaceuticals, Inc., 113 S. Ct. 2786, 2796 (1993).

54. *Locascio*, 6 F.3d at 938-39. The Second Circuit addressed the argument that Agent Schiliro's testimony violated Rule 703 because he relied on nameless informers. *Id.* at 938. However, the court held that Schiliro's testimony is admissible since law enforcement personnel "reasonably rely upon such hearsay in the course of their duties." *Id.*

55. *Id.* The court stated that reliance "upon inadmissible evidence is . . . less an issue of admissibility for the court than an issue of credibility for the jury." *Id.*

56. *See id.* In *Locascio*, the Second Circuit stated that *Daubert* gave significant deference to the authority and discretion of district courts in admitting scientific evidence. *Id.* In this context, the court stated in dictum, "a district court is not bound to accept expert testimony based on questionable data simply because other experts use such data in the field." *Id.*

57. FED. R. EVID. 702. Rule 702 states: "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.*

C. Admissibility of Expert Testimony in Federal Courts

The difference, of course, between federal and state law is that now we have the Supreme Court of the United States telling us that the rule of *Frye v. United States*⁵⁸ does not apply in the federal courts.⁵⁹ Instead, the federal courts have the *Daubert* rule.⁶⁰

The Second Circuit operates under a precedent called *United States v. Williams*⁶¹ which might be characterized as the reliability test.⁶² In *Williams*, a certain number of factors were set out, but the court stated that if the expert or scientific evidence were helpful, and met a number of other criteria, the

58. 293 F. 1013, 1014 (D.C. Cir. 1923) (holding an expert opinion based on a scientific technique inadmissible unless the technique is "generally accepted" as reliable in the relevant scientific community).

59. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 113 S. Ct. 2786, 2794 (1993). The Court stated that:

Given the Rules' permissive backdrop and their inclusion of a specific rule on expert testimony that does not mention 'general acceptance,' the assertion that the Rules somehow assimilated *Frye* is unconvincing. *Frye* made 'general acceptance' the exclusive test for admitting expert scientific testimony. That austere standard, absent from and incompatible with the Federal Rules of Evidence, should not be applied in federal trials.

Id.

60. *Id.* at 2794. For New York's response to *Daubert*, see *People v. Wesley*, 83 N.Y.2d 417, 423 n.2, 633 N.E.2d 451, 454 n.2, 611 N.Y.S.2d 97, 100 n.2 (1994). In *Wesley*, the New York Court of Appeals noted that *Daubert* made clear that Federal Rule of Evidence 702 superseded the *Frye* rule "at least in Federal Courts." *Id.* Without saying much more about *Daubert*, the court stated that it would persist in following the *Frye* rule that the particular procedure must be "generally acceptable" by the scientific community as a whole. *Id.*

61. 583 F.2d 1194 (2d Cir. 1978) (holding that spectrographic voice analysis is not so inherently unreliable or misleading to warrant exclusion from jury's consideration in every case), *cert. denied*, 439 U.S. 1117 (1979). *But see* 26 VAL. U. L. REV. 595 n.199 (1992) (finding that in subsequent cases the Second Circuit has failed to follow the decision in *Williams*).

62. *Williams*, 583 F.2d at 1198. In *Williams* the Second Circuit referred to this test as the "reliability test." *Id.* The Second Circuit stated that the sole issue was whether the scientific evidence "has reached a level of reliability sufficient to warrant its use in the courtroom." *Id.*

evidence would tend to be admissible as well.⁶³ One of the factors, although not the only factor, stated by the Second Circuit was whether or not experts in the pertinent field generally accepted the scientific data.⁶⁴

Frye has been adopted by most state courts⁶⁵ and federal circuits⁶⁶ with the exception of the Second Circuit.⁶⁷

63. *Id.* The Second Circuit examined different criteria when determining whether the spectrographic analysis would be admissible. *Id.* The court stated that “[s]election of the ‘relevant scientific community’ appears to influence the result.” *Id.* Furthermore, “a technique unable to garner *any* support . . . within the scientific community would be found unreliable by a court.” *Id.*

64. *Id.* The other factors that the court examined to determine the reliability of the scientific evidence included “the potential rate of error,” “the existence and maintenance of standards,” “care and concern with which a scientific technique has been employed,” and an “analogous relationship with other types of scientific techniques. . . .” *Id.* at 1198-99.

65. *See, e.g.,* *Scales v. City Court of Mesa*, 594 P.2d 97, 100 (Ariz. 1979) (adopting *Frye* standard); *Ward v. Commissioner of Motor Vehicles*, 1994 WL 517002 (Conn. Super. Ct. Sept. 15, 1994) (adopting *Frye* test to the horizontal gaze nystagmus test to determine alcohol content in blood); *Reed v. State*, 391 A.2d 364, 372 (Md. 1978) (adopting *Frye* test for scientific evidence); *State v. Schwartz*, 447 N.W.2d 422, 425 (Minn. 1989) (stating that DNA evidence is generally admissible under the *Frye* test).

66. *See, e.g.,* *Christophersen v. Allied-Signal Corp.*, 939 F.2d 1106, 1116 (5th Cir. 1991) (adopting the *Frye* test for a finding of what is scientifically correct), *cert. denied*, 112 S. Ct. 1280 (1992); *United States v. Smith*, 869 F.2d 348, 353 (7th Cir. 1989) (settling the manner in which the *Frye* test is to be applied); *Novack v. United States*, 865 F.2d 718, 721 (6th Cir. 1989) (stating that an expert’s opinion be based on a “theory that is generally accepted in the relevant scientific community”); *United States v. Gillespie*, 852 F.2d 475, 481-82 (9th Cir. 1988) (holding that evidence concerning anatomically correct dolls needed to qualify under *Frye*); *United States v. Shorter*, 809 F.2d 54, 61 (D.C. Cir.) (adopting *Frye* standard to determine admissibility of expert testimony “regarding the characteristics of pathological gamblers”), *cert. denied*, 484 U.S. 817 (1987).

67. *Williams*, 583 F.2d at 1198. The standard in *Williams* rejects the rule enunciated in *Frye* in favor of a more liberal approach to the admission of scientific evidence. *Id.* The Second Circuit looked only to the admissibility or non-admissibility of a particular type of scientific evidence and did not necessitate a survey and categorization of the subjective views of a number of scientists. *Id.*

Furthermore, federal circuits that had adopted *Frye* had a somewhat different way in which it defined and applied *Frye*.⁶⁸ *Frye* very simply stated that when courts examine novel scientific evidence, the court must ask the question as to whether the method of the underlying theory and even the application of the novel scientific technique is generally accepted as reliable by experts in the pertinent field.⁶⁹

Of course there were always debates about what is the pertinent field, and obviously a technique can embrace many different pertinent fields.⁷⁰ Then there was the mystery of what is meant

In *United States v. Jackobetz*, the Second Circuit reaffirmed the ruling in *Williams* and explained that the Second Circuit has abandoned *Frye* and rather looked to the Federal Rules of Evidence in determining the admissibility of scientific evidence. 955 F.2d 786, 794 (2d Cir.), *cert. denied*, 113 S. Ct. 104 (1992). The court, in *Jackobetz*, stated that the *Williams* test is nothing more than “a balancing of the reliability of the evidence against its potential negative impact on the jury.” *Id.*

The Third Circuit as well has not adopted the *Frye* test. *See United States v. Downing*, 753 F.2d 1224, 1237 (3d Cir. 1985) (“The language of Fed. R. Evid. 702 . . . and the experience with the *Frye* test suggest the appropriateness of a more flexible approach to the admissibility of novel scientific evidence.”).

68. *See, e.g., Christophersen*, 939 F.2d at 1110 (examining both the *Frye* and Federal Rules of Evidence to determine whether to admit expert testimony); *Shorter*, 809 F.2d at 60 (examining expert testimony under the “three part test mandated by *Frye*”); *United States v. Hearst*, 412 F. Supp. 893, 895 (N.D. Cal. 1976) (upholding exclusion of psycho linguistic testimony due to lack of general acceptance among physcial and scientific authorities).

69. *Frye*, 293 F. at 1014.

70. *See Katharyne C. Johnson, Exiting the Twilight Zone: Changes in the Standard for the Admissibility of Scientific Evidence in Georgia*, 10 GA. ST. U. L. REV. 401, 427-28 (1994). Johnson states that with complex scientific evidence where the specialized field is narrow, “the trial court should note whether the qualifications and skills an expert possesses provide the requisite knowledge necessary to address the issues before the court.” *Id.* at 427. When the evidentiary challenge “is based on the manner in which a procedure was performed, a technician may be well qualified to testify about the questioned technique.” *Id.* However, if the evidentiary challenge is based on the “reliability of the scientific theory which underlies it, the same technician who may be qualified to testify as to the operation of a machine may be unqualified to give meaningful testimony about the scientific principles upon which the test is based.” *Id.* at 427-28. Additionally, “even an eminently qualified expert may

by general acceptance; how does one determine it and what is the burden of proof.⁷¹ Do you have to prove it by a preponderance of the evidence? Do you have to prove it by a reasonable doubt? In order for something to be generally accepted, must the scientific method be published in a peer review scientific journal?

I do not know if any of you know what a peer review scientific journal is, but I will explain it quickly. As opposed to law journals, where we have students edit the journals and decide which articles are incorporated, peer review scientific journals have this notion that other scientists will review the work of a scientist and vet it to see whether or not it should be published.⁷² That at least is the theory. A peer review scientific journal is a journal where one cannot get an article published unless somebody has presumptively reviewed it, asked for changes, even reviewed one's underlying data, although that is comparatively rare, and then finally approved it for

be unable to provide meaningful assistance in understanding a novel theory from within his general discipline that does not impact his particular area of expertise." *Id.* at 428.

71. See *United States v. Williams*, 443 F. Supp. 269, 273 (S.D.N.Y. 1977) (stating that general acceptance requires agreement by a "substantial section of the scientific community"), *aff'd*, 583 F.2d 1194 (2d Cir. 1978), *cert. denied*, 493 U.S. 1117 (1979); *United States v. Zeiger*, 350 F. Supp. 685 (D. D.C.), *rev'd on other grounds*, 475 F.2d 1280 (D.C. Cir. 1972). In *Zeiger*, the district court attempted to define the phrase "general acceptance." *Id.* at 687. The court noted that "[t]he cases following the *Frye* rationale have been carefully considered and they offer little guidance." *Id.* The court defined the term "general" to mean "'common to many, or the greatest number; widespread; prevalent; extensive though not universal.'" *Id.* at 688. (citation omitted). The court then determined that the polygraph test at issue had gained "'general acceptance' although the precise limitations of the device and the intricacies which affect its performance may not be understood to the complete satisfaction of the scientific community." *Id.*

72. See Lawrence K. Altman, M.D., *The Doctor's World; Peer Review is Challenged*, N.Y. TIMES, Feb. 26, 1986, at C3. Peer review scientific journals "involve the use of a professional person's peers to evaluate his or her work. In publishing, the editors of journals send manuscripts they have received to experts for their criticisms and opinions." *Id.* The editors review the expert evaluations and decide which articles to publish. *Id.* "Often, the identity of the reviewer, or referee, is kept secret from the author and sometimes also even the referee's comments." *Id.*

publication.⁷³ Then other scientists can look at the scientific journal and decide whether or not they can replicate the results, and by that fashion something becomes scientific knowledge and eventually generally accepted scientific knowledge.

The *Daubert* decision really begins as a statutory construction of Rule 702⁷⁴ which 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."⁷⁵ The Court began its examination of Rule 702 by explaining that scientific knowledge is mentioned in *Daubert*.⁷⁶ If we think knowledge implies not just anything that a person who can be qualified as a scientist says, but some systematic body of thought, then there has to be some threshold standard of reliability.⁷⁷

73. *Id.* "When the peer review system works well, it prevents errors, improves the quality of accepted papers and helps editors select the most worthy submissions. In theory, the system prevents false claims and duplication among scientific journals." *Id.* Dr. Stephen Lock, editor of the British medical journal and a staunch defender of peer review, states that many journals are restricted by tight budgets and are subsidized by professional societies with political interests. *Id.* This creates a potential conflict of interest between journal editors and professional societies who provide the income on which the journal depends. *Id.*

74. *Daubert*, 113 S. Ct. at 2794. The Supreme Court, upon examination of Rule 702, held that Rule 702 "makes no mention of *Frye*, and a rigid 'general acceptance' requirement would be at odds with the 'liberal thrust' of the Federal Rules and their 'general approach of relaxing the traditional barriers to 'opinion' testimony.'" *Id.* (quoting *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 169 (1988)).

75. FED. R. EVID. 702.

76. *Daubert*, 113 S. Ct. at 2795. Justice Blackmun examined Rule 702 and stated simply that in order for this rule to govern "[t]he subject of an expert's testimony must be 'scientific . . . knowledge.'" *Id.* (citation omitted) (emphasis added).

77. *Id.* In *Daubert*, the Supreme Court defined the adjective "scientific" to mean "a grounding in the methods and procedures of science" and the noun "knowledge" as "more than subjective belief or unsupported speculation." *Id.* The Court determined that "in order to qualify as scientific knowledge an inference or assertion must be derived by the scientific method." *Id.* Thus, the

Certainly, science implies that there is some rigor to some threshold to what can be introduced in court other than just that it would be relevant or it would tend to help resolve a fact in issue. Thus, the Court reviewed the term "scientific knowledge" and explained that Rule 702 requires some reliability,⁷⁸ and also requires that it assists the trier of fact and is helpful.⁷⁹

Justice Blackmun's decision in *Daubert* then begins by explaining that there is a reliability prong and a relevance prong.⁸⁰ Justice Blackmun also said something very important which makes this quite an interesting decision. He explained that there also has to be what Judge Becker in *United States v. Downing*⁸¹ called an issue of fit, whereby the scientific method at issue must be valid for the purpose for which it is offered.⁸² What one finds all the time is that there may be certain scientific techniques that are valid for one purpose, but when you try to apply them forensically, that is, within the court or forum, for the purpose of resolving a legal dispute, it may not be valid and one may need additional kinds of scientific testing and experimentation to validate it for that purpose.⁸³ Justice

Court concluded that requiring an expert's testimony to qualify as scientific knowledge "establishes a standard of evidentiary reliability." *Id.*

78. *Id.*

79. *Id.* Justice Blackmun explained that a further requirement of Rule 702 is that it "'assist the trier of fact to understand the evidence or to determine a fact in issue.'" *Id.* (emphasis added) (quoting FED. R. EVID. 702). Justice Blackmun stated that when expert testimony is not ultimately relevant it will also be "non-helpful" to the trier of fact. *Id.* at 2795.

80. *Id.* ("[U]nder the Rules the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.").

81. 753 F.2d 1224, 1226 (3d Cir. 1985) (holding that district court erred in refusing to admit testimony of an "expert in the field of human perception and memory . . . concerning the reliability of eyewitness identifications at a criminal prosecution.").

82. *Id.* at 1242. "An additional consideration under Rule 702 -- and another aspect of relevancy -- is whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute." *Id.*

83. *See Daubert*, 113 S. Ct. at 2796 (stating that if something is scientifically valid for one purpose it does not necessarily mean that it is scientifically valid for another purpose); *see also* James E. Starrs, *Frye v.*

Blackmun stated that for purposes of determining whether evidence is helpful one must decide whether or not there is fit or whether there is a "valid scientific connection."⁸⁴ It must be valid for the purpose for which it is offered.

Premised on this theory, the Court then addressed a number of factors that trial courts may consider in determining whether the evidence is both reliable and relevant,⁸⁵ and whether there is a valid scientific connection or fit. One of the Court's considerations was whether the technique is capable of being tested and if, in fact, it has been tested.⁸⁶ What the court is referring to when it speaks of whether the scientific techniques has been tested is what Karl Popper⁸⁷ and other scientific philosophers refer to as controlled experimentation or classic

U.S. Restructured and Revitalized: A Proposal to Amend Federal Evidence Rule 702, 26 JURIMETRICS J. 249, 258-59 (1986). This article was cited in *Daubert* for the proposition that scientific validity for one purpose may not be "fit" for another purpose. Starrs provides the following illustrations where this rule may be applied:

(a) When the issue is whether the laser is a scientifically valid technique to visualize fingerprints, surgeons who have witnessed a marked improvement in their surgical skills under the impetus of laser-assisted surgery would not be competent witnesses to the scientific validity of the laser fingerprint identification usage.

(b) Even though HLA blood may be acceptable in paternity cases where laboratory conditions of cleanliness in the testing of fluid blood prevail, that fact should not guarantee the acceptability of HLA typing of dried, mixed, and contaminated blood derived from field situations in criminal cases. . . .

Id.

84. *Daubert*, 113 S. Ct. at 2796 ("Rule 702's 'helpfulness' standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.").

85. *Id.* The Court noted that the following factors would not be an exhaustive list. *Id.* These factors include: whether the technique has been tested; whether the technique has been subjected to peer review or publication; the potential rate of error; and whether the technique is generally accepted. *Id.* at 2797.

86. *Id.* at 2796.

87. See KARL R. POPPER, *THE LOGIC OF SCIENTIFIC DISCOVERY* (1959). Popper is viewed by many as the most contemporary philosopher of science. His major thesis is that a hypothesis is scientific only if it can specify the results that would show it to be false.

empiricism.⁸⁸ The focus of discussion is whether or not the method at issue has been tested and what is its potential error rate.⁸⁹ Another factor the Court considered was whether or not the method is generally accepted in the relevant scientific field and what standards apply.⁹⁰ A final factor which again is not determinative, is whether the method had been peer-reviewed in a scientific publication.⁹¹

What is this going to change? I would submit to you, quite a lot. There is a recent publication, called Shepard's "Expert and Scientific Evidence Quarterly." Professor Jonakait, who you heard this morning,⁹² has an article in this publication. I have one of my briefs in there as well, relating to truth in advertising. There are a group of people who write about experts in this journal. But what is fascinating about it, in the wake of *Daubert*, is that there is expert testimony that was admitted under *Frye* because it had always been admitted, particularly in the area of forensic science, which will now probably have very little support scientifically if you are to look at it in the rigorous way that Justice Blackmun suggests we do in *Daubert*.⁹³

88. BALLENTINE'S LAW DICTIONARY 399 (3d ed. 1969) (defining empiricism to mean "searching for knowledge by experiment"). See Helen W. Winston, "An Anomaly Unknown": *Supreme Court Application of International Law Norms on Indigenous Rights in the Cherokee Cases (1831-32)*, 1 TULSA J. COMP. & INT'L L. 339 (1993) ("It was Galileo who first developed the idea, axiomatic for us today, that observation and experiment are the principal criteria for scientific truth; that science is grounded in empiricism, not authority.").

89. *Daubert*, 113 S. Ct. at 2796-97.

90. *Id.* at 2797 ("The inquiry envisioned by Rule 702 is . . . a flexible one. Its overarching subject is the scientific validity - and thus the evidentiary relevance and reliability - of the principles that underlie a proposed submission. The focus . . . must be solely on principles and methodology, not on the conclusions that they generate.").

91. *Id.*; see *supra* notes 72-73 and accompanying text.

92. Randolph N. Jonakait, *Coconspirator Statements and Former Testimony in New York and Federal Courts with Some Comments on Codification*, 11 TOURO L. REV. 37 (discussing the admissibility of co-conspirator statements under New York and federal law).

93. *Daubert*, 113 S. Ct. at 2796. Justice Blackmun has been praised for making judges think more like scientists by focusing on scientific factors that

Examples are things like handwriting analysis.⁹⁴ There has been much written in the legal literature about the fact that there is almost no scientific experimentation that supports the position that a documents expert can look at a series of signatures and give a scientific basis for his conclusions which would be better than any lay person's conclusions.⁹⁵

Where is the underlying scientific basis? Can this be tested? Is there scientific data that is capable of being tested or has been tested? Do we know what the error rate is for a document examiner? Are there standards by which we can look at it? Has the work been generally accepted by peer review journals explaining what their techniques are so one can try to replicate their methods? These are the questions that will be asked about unquestionably in handwriting analysis,⁹⁶ fiber evidence,⁹⁷ and

are usually considered when deciding whether a proposition is empirically valid. Furthermore, *Daubert* demanded judges to do more than determine scientific validity but rather to see if the science offered "fits" the question at issue. *Id.* See Edward J. Imwinkelried, *The Next Step After Daubert: Developing a Similarly Epistemological Approach to Ensuring the Reliability of Nonscientific Expert Testimony*, 15 CARDOZO L. REV. 2271, 2277 (1994) (stating that the factors Justice Blackmun directed trial judges to consider are "the very questions which an empirical scientist normally addresses in deciding whether a proposition has been experimentally verified").

94. See, e.g., *United States v. Fleishman*, 684 F.2d 1329, 1336-37 (upholding testimony of handwriting expert under Rule 702, noting that despite testimony's lack of certainty it may be helpful in assisting the trier of fact), *cert. denied*, 459 U.S. 1044 (1982).

95. See D. Michael Risinger, Mark P. Denbeaux & Michael J. Saks, *Exorcism of Ignorance as a Proxy for Rational Knowledge: The Lessons of Handwriting Identification "Expertise"*, 137 U. PA. L. REV. 731, 750-51 (1989). The article states that:

If a jury can compare handwriting no worse than proffered 'experts,' then the expertise does not exist. For any given task, the level of performance of professional document examiners may be no better than that of laypersons. Indeed, lay persons might perform some tasks consistently *better* than 'experts.' . . . [N]o available evidence demonstrates the existence of handwriting identification expertise.

Id.

96. See *supra* notes 94-95 and accompanying text; see also Mark A. Rothstein, *Wrongful Refusal to Hire: Attaching the Other Half of the Employment-At-Will Rule*, 24 CONN. L. REV. 97, 146 n.162 (1991). The

hair analysis,⁹⁸ as well as a number of other forensic techniques⁹⁹ such as ballistics.¹⁰⁰

One of the things that I should also probably point out is that *Daubert* arguably is going to be a very interesting decision because on its face commentators might think that more scientific evidence will be admissible because *Daubert* is a “flexible test,” and not as rigid as *Frye*. *Frye* is rigid. *Frye* presumably held that

scientific validity of handwriting analysis has not been established and many so-called handwriting experts have no formal training and learn handwriting analysis through a correspondence course. *Id.*

97. Fiber analysis received publicity in the Wayne Williams trial. *Williams v. State*, 312 S.E.2d 40, 71 (1983) (holding that the trial court did not err in admitting fiber evidence to aid in establishing the identity of the defendant as the perpetrator of the murders in question). See Irving C. Stone, *Capabilities of Modern Forensic Laboratories*, 25 WM. & MARY L. REV. 659 (1984). In the Wayne Williams case, analysts matched “carpet fibers taken from the bodies of several victims with fibers from the rugs and carpets in the home and automobile of the defendant.” *Id.* at 662. Forensic scientists must remain abreast of “polymer fiber types” because new fibers are developed each year. *Id.*

98. See Stone, *supra* note 97, at 662. The analysis of hair samples is conducted by applying the technique of comparative microscopy. *Id.* The forensic scientist compares the surface and “internal morphological features of known and questioned hairs under the forensic comparison microscope.” *Id.* Usually, the forensic scientist can determine that a particular person is not the source of a hair. *Id.* However, if all microscopic features are similar, then the examiner can only reach the conclusion that the questioned hairs might have originated from the same source. *Id.*

99. See Henry C. Lee, *Forensic Science and the Law*, 25 CONN. L. REV. 1117 (1993). “[F]orensic science draws upon the principles and methods of all the traditional sciences, such as physics, chemistry, biology and mathematics.” *Id.* Forensic science includes the following areas: fingerprints comparison, document examination, firearms and toolmarks comparison, drug identification, imprints and pattern evidence comparison, comparison of blood and body fluids, and identification of hair, fiber, glass, soil and other types of trace and transfer evidence. *Id.* at 1118.

100. Ballistics is “[t]he science of gun examination frequently used in criminal cases, especially cases of homicide, to determine the firing capacity of a weapon, its fireability, and whether a given bullet was fired from a particular gun.” BLACK’S LAW DICTIONARY 143 (6th ed. 1990).

the judge is not supposed to look at the science.¹⁰¹ During a *Frye* analysis, all the judge need do is count noses, as *United States v. Williams* explained.¹⁰² In other words, the number of scientists in the field will be counted and if they all agree the evidence will be admissible. However, judges are not scientists and they do not want to listen to a battle of experts and have to judge what is good and what is bad science. *Daubert* does not give federal judges that luxury anymore. Judges now have to come to grips with the science.¹⁰³

Efforts are actually being made to improve a judge's understanding of scientific principles. The Federal Judicial Center is convening various educational programs to try to make scientists, lawyers, and judges scientifically literate.¹⁰⁴ Believe me, I have tried to get literate, and it is not an easy task.

D. Daubert and DNA Evidence

The *Daubert* decision, if analyzed, may even change DNA evidence,¹⁰⁵ which is complicated enough. I just wrote an article

101. *Frye*, 293 F. at 1014 (stating that evidential force of the scientific principle must be recognized and sufficiently established to have gained general acceptance in the particular field in which it belongs).

102. *Williams*, 583 F.2d at 1198 (stating that "[a] determination of reliability cannot rest solely on a process of 'counting [scientific] noses.'").

103. *Daubert*, 113 S. Ct. 2786. Pursuant to Rule 702 the trial judge is assigned the "task of ensuring that an expert's testimony rests on a reliable foundation and is relevant to the task at hand. Pertinent evidence based on scientifically valid principles will satisfy those demands." *Id.* at 2799.

104. See, e.g., Victoria Slind-Flor, *Helping Judges To Judge Science*, NAT. L.J. A5 (March 14, 1994). This article makes reference to a manual which will be distributed in the latter part of 1994, by the Federal Judicial Center, to help guide judges with cases involving complicated scientific testimony. *Id.* "The manual will cover the admissibility of expert testimony and will discuss cases in which the court ought to appoint an expert for itself under Rule 706 of the Federal Rules of Evidence . . . and will include [topics such] as epidemiology, toxicology, statistical inference and forensic analysis of DNA." *Id.*

105. BLACK'S LAW DICTIONARY 480 (6th ed. 1990). DNA identification is "a method of determining distinctive patterns in genetic material in order to identify the source of a biological specimen, such as blood, tissue or hair." *Id.* See *infra* notes 106-127 and accompanying text.

that talks about this very issue.¹⁰⁶ There is an interesting application of the *Daubert* analysis in Judge Pratt's written decision in *United States v. Jakobetz*,¹⁰⁷ which was decided before *Daubert* and also before a lot of the developments in the area of DNA testing.

There is a simple application of how that sort of DNA analysis might work, and it can be compared to the recent New York Court of Appeals case, *People v. Wesley*.¹⁰⁸ I will use the hypothetical where one is conducting a DNA analysis to show that the blood evidence left at a crime scene matches the defendant's blood.

The way DNA tests generally work is that you try to match the various sections of the DNA and then give some kind of statistic about the probability that this defendant is the source of the DNA.¹⁰⁹ I am not talking about instances where DNA analysis excludes someone as being the source of the DNA. That has never been an issue scientific or legally.¹¹⁰ An exclusion under

106. Barry C. Scheck, *DNA and Daubert*, 15 CARDOZO L. REV. 1959 (1994) (stating that *Daubert* requires the courts to take a "much more sophisticated and informed analysis of scientific evidence than *Frye v. United States*").

107. 955 F.2d 786, 800 (2d Cir. 992) (concluding that DNA profiling should rarely be excluded from jury consideration, and thus, that the district court "properly exercised its discretion in admitting the DNA profiling evidence proffered by the government in this case . . .").

108. 83 N.Y.2d 417, 422, 633 N.E.2d 451, 454, 611 N.Y.S.2d 97, 100 (1994) (holding that the standard to be used in determining whether novel DNA profiling evidence is properly admissible is whether the reliability of DNA evidence is generally accepted by the relevant scientific community at the time of the proceedings).

109. See Richard Sloane, *DNA Evidence and its Underlying Research*, 212 N.Y. L.J. 5 (Aug. 23, 1994). DNA analysis is a six-step procedure: "(1) extraction of DNA . . .; (2) fragmentation by restriction enzymes . . .; (3) gel electrophoresis . . .; (4) southern blotting . . .; (5) hybridization . . .; [and] (6) autoradiograph . . ." *Id.* In addition to the steps above there are two additional steps: (1) "the determination that any two samples of DNA are identical; and [(2)] that the 'match' of the two samples is the clinching proof, but only if its significance is accepted as reliable by the scientific community." *Id.*

110. See MCCORMICK ON EVIDENCE § 205, at 369 (John William Strong ed., 4th ed. 1992) ("From the outset, it was recognized that if the suspect's

DNA analysis is just like a blood type; either it is blood type A or it is blood type B. You do not have to calculate statistics. Thus, there are no particular problems in this technology when there is a non-match. It has really never been an issue in controversy. However, matches, or so-called matches, have been an issue.¹¹¹

Now let us consider a *Daubert* analysis. The kind of DNA techniques that are employed in courts are techniques that are used for purposes initially of doing DNA disease diagnosis.¹¹² For example, one would look at the DNA of the mother and the DNA of the father, and compare it to the DNA of the child to determine whether then the child has a diseased gene.¹¹³ Nobody doubts that we can do that for purposes of a diagnosis of disease, where you are only looking at the DNA of the mother, the father, and the child. Where it gets more complicated is when you are in a forensic case and have samples that are subjected to

antigens do not match those in the sample found at the scene of a crime, then the incriminating trace does not consist of his blood.”).

111. *Id.* The authors note that:

For a considerable time . . . there was a difference of judicial opinion concerning evidence of a match. Since some combinations of antigens are relatively common, a few courts dismissed the positive test results for these antigens as irrelevant. The better view - and the overwhelming majority position - is that positive findings are neither irrelevant nor so innately prejudicial as to justify a rule against their admission.

Id.

112. See Laurel Beeler & William R. Wiebe, *DNA Identification Tests and the Courts*, 63 WASH. L. REV. 903, 907 (1988) (noting that DNA tests developed for purpose of disease diagnosis).

113. See Virginia P. Sybert, *Principles of Genetics in the Molecular Era: A Primer for Dermatologists*, 129 ARCHIVES OF DERMATOLOGY 1409-16 (1993). Every individual has “two copies of every gene and each of the pair of genes is linked to the DNA on its own chromosome.” *Id.* For example, “[i]f an affected individual is heterozygous for a polymorphism . . . we do not know whether the mutant disease gene is located on the chromosome with polymorphism 1 or the chromosome with polymorphism 2.” *Id.* Only by studying other family members can it be determined that family members “with the disease always inherit polymorphism 1 and unaffected family members always inherit polymorphism 2, we then know that in this family, the mutant gene is on the same chromosome as polymorphism.” *Id.*

environmental insults,¹¹⁴ and even more complicated is how to determine where this evidence came from and what the statistics are or what the frequency is of these DNA profiles in a given population. But if you ask under the *Daubert* analysis what is the purpose of this methodology, the answer is that it is certainly valid for certain purposes, but what is the purpose? I would submit to you the purpose of DNA evidence in a so-called match situation is to prove that this defendant is the source of the DNA.¹¹⁵

For example, in a typical rape case, sperm is recovered on a vaginal swab. Analyzing the DNA from the sperm one would want to say that this defendant is the source of the DNA. Analytically, then, if there is a so-called match there are then two additional questions and probabilities which have more significance under *Daubert* than they would have under *Jakobetz* or related cases.

The first question concerns the frequency of the DNA matching profile in some populations. However, I will not cover this area of concern. Judge Pratt can tell you that this is scientifically an extraordinarily controversial and complicated issue.¹¹⁶ When

114. The competing views on the effect of environmental insults were expressed in *United States v. Yee*, 134 F.R.D. 167 (N.D. Ohio 1991), *aff'd*, 12 F.3d 540 (1993). Defense expert Dr. D'Eustachio concluded that the FBI's study of the effects of chemical contaminants (including bacteria and yeast contamination) had produced unexpected results in the DNA testing. *Id.* at 178. The government's expert, however, concluded that such environmental insults have no effect on the outcome of the analysis in that the test will result inconclusive or the DNA will be destroyed in its entirety. *Id.* at 176.

115. *See, e.g.*, *Jones v. Murray*, 962 F.2d 302, 307 (4th Cir.) ("The individuality of the DNA provides a dramatic new tool for the law enforcement effort to match suspects and criminal conduct."), *cert. denied*, 113 S. Ct. 472 (1992).

116. *See* Harlan A. Levy, *DNA: Race, Ethnicity and Statistical Evidence*, 206 N.Y. L.J. 1 (July 15, 1991). "The statistical frequency assigned will vary depending on both the particular profile and the suspect's racial group, since different genetic profiles occur with differing frequencies among Caucasians, African-Americans and Hispanics." *Id.* DNA laboratories have studied the frequencies of these genetic profiles and "estimate the frequency of the suspect's profile" based on those studies. *Id.* "For example, the laboratory might estimate in a given case that the suspect's DNA profile occurs in

bands are discovered and found to match the profile, the question that would then arise is what is the frequency of this match in the North American Caucasian population? You may get an answer such as one out of a million people. Some scientists will say it cannot be that low a frequency or that rare a frequency.¹¹⁷

Yet when one looks at the National Research Council of the National Academy of Science's [hereinafter NRC] recent study¹¹⁸ reported after *Jakobetz*, the second question raised after *Daubert* concerns the error rate of a laboratory, since *Daubert* refers to potential error rate.¹¹⁹ This is something we have to know about laboratories. In DNA evidence, it becomes more important than ever because of the very few proficiency tests that have been

approximately every 200 million people in the Caucasian population, every 320 million people in the African-American population, and every 400 million people in the Hispanic population." *Id.* Critics argue that "there are racial and ethnic subgroups . . . within the Caucasian, African-American and Hispanic populations that render useless population statistics based on such broad population groupings." *Id.* Further, critics argue that "the population studies must be done with broad population groups broken down into racial, ethnic and geographic subgroups." *Id.*

117. These frequencies have been suspect due to the possibility of "substructuring." See *Yee*, 134 F.R.D. at 174-75 (explaining the possible effects of substructuring on matching). The defense counsel contended in *Yee* that:

[T]he basic design of the FBI Caucasian database was flawed because it failed to take into account the likelihood that there is no such thing as an American Caucasian population. Instead, in the view of the defense experts, there was a significant likelihood of "substructure", whereby the frequency of particular alleles might vary on the basis of the ethnic ancestry of particular subpopulations within the overall American Caucasian population.

Id.; William C. Thompson, *Evaluating the Admissibility of New Genetic Identification Tests: Lesions From the DNA War*, 84 J. CRIM. L. J. CRIMINOLOGY 22, 91 (1993) (addressing several flaws with such frequency evaluations).

118. See NATIONAL RESEARCH COUNCIL, DNA TECHNOLOGY IN FORENSIC SCIENCE 51-52 (Nat'l Acad. Press 1992) [hereinafter NRC REPORT]. This study was initiated in January 1990, in response to the controversy that was arising over the reliability, methodological standards, and interpretation of population statistics that accompany DNA typings in the courtroom.

119. *Daubert*, 113 S. Ct. at 2797. Under *Daubert*, a laboratory must determine a reasonably reliable estimate of its potential error rate. *Id.*

done at DNA laboratories. I am only referring to open proficiency tests, which is a situation where the DNA laboratory is given samples to test in order to see if there is a match; as opposed to blind proficiency testing in which external blinds are conducted by an outside agency.¹²⁰ Blind proficiency tests are considered to be the more rigorous and acceptable form of proficiency testing.¹²¹ Even in an open proficiency testing, some of the best known laboratories have made false positive matches.¹²² One can find false positive matches in any laboratory based on a sampling handling error or a misapplication of protocol.¹²³

So the question then is what is the rate of false positive error for a particular laboratory and what should be told to the jury? If the NRC states, for example, that the rate of false positives is one-in-a-hundred or one-in-a-thousand yet the coincidental or gene frequency of this DNA match is really one-in-a-million, telling the jury the one-in-a-million statistic and not the one-in-a-hundred or the one-in-a-thousand statistic is then really misleading.¹²⁴

120. See generally *State v. Alt*, 504 N.W.2d 38 (Minn. App. 1993). "Blind" proficiency tests [occur when] . . . an analyst would be unaware of the test." *Id.* at 48. "[O]pen testing [occurs when] the analyst is given known samples" *Id.*

121. See, e.g., MCCORMICK, *supra* note 110, § 205, at 372 (recommending blind proficiency tests as prerequisite to the admissibility in courts of laboratory DNA testing).

122. See, e.g., *People v. Castro*, 144 Misc. 2d 956, 545 N.Y.S.2d 985 (Sup. Ct. Bronx County 1989). In *Castro*, defense counsel successfully charged Lifecodes, a prominent DNA laboratory, with scientific fraud. *Id.* at 978 n.15, 545 N.Y.S.2d at 998 n.15. After several changes of opinion, Lifecodes acknowledged that its firm's testing had not revealed a match. *Id.*

123. False-positive means "relating to or being an individual or a test result that is erroneously classified in a positive category (as of diagnosis) because of imperfect testing methods or procedures." WEBSTER'S MEDICAL DESK DICTIONARY 235 (1986).

124. See Kenneth R. Krieling, *DNA Technology in Forensic Science*, Committee on DNA Technology, 33 JURIMETRICS J. 449, 480 (1992). Krieling noted that:

Human error in applying the complex multistep technology may be overlooked. Subjective aspects of interpreting the images may not be

This is not good science and it probably has Federal Rule of Evidence 403 problems in terms of unfair prejudice.¹²⁵ It appears that the laboratories' potential error rate may very well be that high, particularly in DNA testing, when it is compared with the extremely low frequencies that one would otherwise get. So, the NRC -- and again, this is all after the *Jakobetz* decision -- recommended that juries be told first what the frequency of the DNA profile is in a population, but second and most importantly to be told what the error rate is of the laboratory.¹²⁶ It is interesting to see that even though the NRC wrote this before *Daubert* was decided, the Supreme Court in *Daubert* focused on this very factor of laboratory's potential error rate as one of its key factors.¹²⁷

E. Expert Testimony in New York: Frye Lives on

I could say a lot more about testing and general acceptance in that regard, but it is probably not worth it at this point. I have

challenged. The question of error rates and false positive rates may not be raised or, if raised, lost in the conflict of probabilities. The danger of random match probability being erroneously converted by the trier into a probability that the defendant is the source of the evidence continues and may be exacerbated by the . . . principle guesstimates.

Id.

125. FED. R. EVID. 403. Rule 403 provides that "[a]lthough relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of 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." *Id.*

126. The NRC REPORT report stated:

Especially for a technology with high discriminatory power, such as DNA typing, laboratory error rates must be continually estimated in blind proficiency testing and must be disclosed to juries. For example, suppose the chance of a match due to two persons' having the same pattern were 1 in 1,000,000, but the laboratory had made one error in 500 tests. The jury should be told both results; both facts are relevant to a jury's determination.

NRC REPORT, *supra* note 118, at 89.

127. See *Daubert*, 113 S. Ct. at 2797 (listing laboratory's potential error rate as a factor to consider).

about a half a second to talk about *Frye*¹²⁸ in New York. New York has a *Frye* standard.¹²⁹ One thing, though, that I would note about the *Frye* standard and the way it is applied in New York is the way the notion of “fit” articulated in *Daubert* floats through the New York decisions in a very interesting way.

For example, when the New York Court of Appeals heard cases on child sexual abuse, the court admitted typical syndrome evidence.¹³⁰ The court heard testimony on a body of scientific knowledge based upon studies of children who have been sexually abused and empirical findings of certain characteristics of these children.¹³¹ In rape trauma cases,¹³² the New York Court of Appeals also admitted testimony that included syndrome evidence, based on empirical studies conducted of women who had been raped and the following characteristics that they would

128. *Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923) (holding that “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”).

129. *See, e.g.*, *People v. Wesley*, 83 N.Y.2d 417, 633 N.E.2d 451, 611 N.Y.S.2d 97 (1994) (applying *Frye* test to determine whether DNA profiling was admissible in this case); *People v. Keene*, 156 Misc. 2d 108, 110, 591 N.Y.S.2d 733, 735 (Sup. Ct. Queens County 1992) (“The admissibility of novel scientific evidence is governed in New York by the rule originally set forth in *Frye v. United States* . . .”).

130. *See In the Matter of Nicole V.*, 71 N.Y.2d 112, 121, 518 N.E.2d 914, 917, 524 N.Y.S.2d 19, 23 (1987) (admitting testimony on sexually abused child syndrome).

131. *Id.* (“[Sexually abused child syndrome] is a recognized diagnosis based upon comparisons between the characteristics of individuals and relationships in incestuous families . . . and the characteristics of the individuals and relationships of the family in question . . .”).

132. *People v. Taylor*, 75 N.Y.2d 277, 552 N.E.2d 131, 552 N.Y.S.2d 883 (1990). In *Taylor* the court stated that although there is no “typical” rape victim and that there is a broad range of symptoms that may arise, “the relevant scientific community has generally accepted that rape is a highly traumatic event that will in many women trigger the onset of certain identifiable symptoms.” *Id.* at 286, 552 N.E.2d at 134, 552 N.Y.S.2d at 886. Thus, the court listed several symptoms of posttraumatic stress disorder which many rape victims experience. *Id.* at 286-87, 552 N.E.2d at 134, 552 N.Y.S.2d at 886-87.

possess.¹³³ The same type of syndrome evidence can be seen with battered women cases.¹³⁴

Then one must ask about the fit question. Having this data, can we then allow an expert to come into court and say, "I have examined the child, the child is not sleeping, the child has intrusive nightmares, the child has defecated for no reason in the middle of night, the child goes through some of these ten categories that a social scientist named Sigoria identified and therefore this child was sexually abused." I believe the answer is no because it is not valid for the purpose for which it is offered.

What the New York Court of Appeals stated in child sexual abuse cases is similar to what was stated in the Kelley Michaels case in New Jersey.¹³⁵ The New York Court of Appeals states that one can introduce expert syndrome testimony only for the purposes of rebutting a myth that a jury might otherwise believe.¹³⁶ An example of such a myth would be that a child who was sexually abused would immediately report this abuse. If that

133. *Id.* at 286-87, 552 N.E.2d at 134-35, 552 N.Y.S.2d at 886 (explaining that rape victims experience common symptoms of posttraumatic stress disorder).

134. *See, e.g.*, *People v. Ciervo*, 123 A.D.2d 393, 394, 506 N.Y.S.2d 462, 463 (2d Dep't 1986). In order to support the claim that Ciervo believed she was in imminent, life-threatening danger, her defense expert was allowed to introduce evidence that a prior pattern of beatings by the decedent created that perception. *Id.*

135. *State v. Michaels*, 625 A.2d 489, 499 (N.J. App. Div. 1993) (reversing defendant's conviction based on fact that state's expert went beyond the limited permissible scope of syndrome testimony), *aff'd*, 642 A.2d 1372 (1994). The court stated that "child-abuse expert evidence is admissible only for the purpose of rehabilitation-explaining traits often found in children who had been abused." *Id.* Furthermore, the court explained that it is the role of the expert to only refer to specific behavioral characteristics of the victim, which might seem to be inconsistent is actually consistent with sexual abuse. *Id.*

136. In the *Matter of Nicole V.*, 71 N.Y.2d 112, 518 N.E.2d 914, 524 N.Y.S.2d 19 (1987). "The psychological and behavioral characteristics and reactions typically shared by victims of abuse in a familial setting are not generally known by the average person. . . ." *Id.* Thus, it was admitted to rebut any juror misconceptions. *Id.* at 120, 518 N.E.2d at 917, 524 N.Y.S.2d at 23; *People v. Keindl*, 68 N.Y.2d 410, 422, 502 N.E.2d 577, 583, 509 N.Y.S.2d 790, 796 (1986) (rejecting the notion that syndrome evidence goes to the issue of guilt).

type of myth is somehow put into issue, then the witness can testify to rebut that misconception the jurors might have. However, such evidence cannot be used affirmatively to prove that there was in fact sexual abuse or in a rape trauma syndrome that there was in fact a rape.¹³⁷ I submit to you that even though the New York Court of Appeals was working under a *Frye* analysis to get to those results, they were really doing a fit question.

F. Foundational Requirements

The last point I will discuss, which can be very confusing to people, is what I would call the notion of minimal foundational requirements.¹³⁸ With regard to expert testimony and vetting it by either what we will call a *Daubert* analysis in federal courts or a *Frye* analysis in New York, the question then arises as to the defect. For example, if the evidence were challenged, would the defect be a matter of weight or a matter of admissibility? This is usually the determining factor.

One thing that New York has done very clearly in applying *Frye* is that if a scientific method has been accepted by experts generally, and if there is a particular protocol that should be followed and is not followed, the evidence ought to be precluded.¹³⁹ It is not a matter of weight, but rather a matter of

137. See *Nicole V.*, 71 N.Y.2d at 120, 518 N.E.2d at 917, 524 N.Y.S.2d at 23 (admitting evidence to only inform juror's of typical characteristics of a child who has been sexually abused).

138. See *Daubert*, 113 S. Ct. at 2794-96. Rule 702 places limits on expert testimony by assigning the trial judge the duty to ensure that an expert's testimony rests on a reliable foundation and on relevance. *Id.* The Court states that Rule 702 requires an expert's testimony pertain to "scientific . . . knowledge." *Id.* at 2795. "[S]cientific implies a grounding in the methods and procedures of science." *Id.* "[K]nowledge . . . 'applies to any body of known facts or to any body of ideas inferred from such facts or accepted as truths on good grounds.'" *Id.* (citation omitted). These factors create a foundational requirement of reliability. *Id.*

139. See *People v. Castro*, 144 Misc. 2d 956, 979-80, 545 N.Y.S.2d 985, 999 (Sup. Ct. Bronx County 1989) (concluding "[a] pretrial hearing should be conducted to determine if the testing laboratory substantially performed the

admissibility because, to use the terms of the New York Court of Appeals in *People v. Middleton*¹⁴⁰ and *People v. Hughes*,¹⁴¹ the generally accepted technique was not employed. So, if you do not employ the generally accepted technique, or if you do not use the right method, then the evidence should not come in. Again, it is not a question of weight, or a question of “results,” but rather a question of admissibility.

In the *Jakobetz* decision, Judge Pratt said exactly the same thing with respect to certain kinds of DNA challenges.¹⁴² I think that these are kinds of minimal foundational requirements that apply to any kind of evidence under Rule 104 of the Federal Rules of Evidence,¹⁴³ or certainly even scientific evidence, and it is often confused in the application by the courts.

Hon. George C. Pratt:

Thank you, Professor Scheck. Some of what Professor Scheck said just brought to mind that much of the law of evidence is based on certain assumptions that we make about people, about

scientifically accepted tests and techniques, yielding sufficiently reliable results to be admissible as a question of fact for the jury”).

140. 54 N.Y.2d 42, 45, 429 N.E.2d 100, 101, 444 N.Y.S.2d 581, 582 (1981) (holding that generally accepted technique of identification through configurations of bite marks is admissible and that the weight of that evidence was later to be determined by the jury).

141. 59 N.Y.2d 523, 542, 453 N.E.2d 484, 494, 466 N.Y.S.2d 255, 265 (1983) (hypnosis has not gained general acceptance as a reliable means of restoring recollection), *cert. denied*, 492 U.S. 908 (1989).

142. 955 F.2d 786, 800 (2d Cir.), *cert. denied*, 113 S. Ct. 104 (1992).

143. FED. R. EVID. 104. Rule 104 provides in pertinent part:

(a) Questions of admissibility generally.

Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court, subject to the provisions of subdivision (b). . . .

(b) Relevancy conditioned on fact

When the relevancy of evidence depends upon the fulfillment of a condition of fact, the court shall admit it upon, or subject to, the introduction of evidence sufficient to support a finding of the fulfillment of the condition.

Id.

how they think, how they perceive things, how they remember things, what their experiences are and what normal reactions might be under the circumstances.

That led my wondering mind to two things. My first thought concerns Rule 701 of the Federal Rules of Evidence which is the lay opinion rule¹⁴⁴ and how that dovetails with the expert opinion rule.¹⁴⁵ If you spend much time in state court you are bound to hear an objection such as: "Objection Your Honor, that question calls for the operation of the witness' mind." God forbid a witness should think!

However, the theory for taking testimony is that a witness is nothing but a recording machine or a tape-recorder in which they just play it back in the courtroom without interpreting it in any way. When witnesses testify their testimony does not go through

144. FED. R. EVID. 701. Rule 701 states that:

If the witness is not testifying as an expert, his testimony in the form of opinions or inferences is limited to those opinions or inferences which are (a) rationally based on the perception of the witness and (b) helpful to a clear understanding of his testimony or the determination of a fact in issue.

Id. Under Rule 701, a witness may speak in terms of opinions if it makes the testimony clearer and is based on actual perceptions by the witness. *Id.* See MCCORMICK, *supra* note 110, § 11, at 18-19. "Under Rule 701 . . . the witness must have personal knowledge of matter that forms the basis of testimony of opinion . . ." *Id.* at 19. "[T]he admission of the opinions of non-expert witnesses may well be described, not as a rule excluding opinions, but as a rule of preference." *Id.* at 18.

145. FED. R. EVID. 702. Rule 702 gives the courts great discretion in determining whether an opinion from an expert in a specific field will assist the finder of fact. See MCCORMICK, *supra* note 110, § 13, at 21. "Rule 702 should permit expert opinion even if the matter is within the competence of the jurors if specialized knowledge will be helpful, as it may be in particular situations." *Id.*; see also Mason Ladd, *Expert Testimony*, 5 VAND. L. REV. 414 (1952).

The necessity which makes opinion testimony of laymen admissible arises out of the inadequacy of expression to communicate otherwise the perceptions of the witness. The reason of necessity as applied to the admission of expert testimony arises from the inability of triers of fact to resolve certain issues requiring persons with special skills, experience, or scientific knowledge to understand them.

Id. at 417.

their minds, it just goes in and out, just like a court reporter who simply hears things and takes down everything without thinking about what is being said.

The lay opinion rule has done away with that objection.¹⁴⁶ It does not work anymore because it permits any witness to testify to opinions based upon his or her own observations.¹⁴⁷ It is a very useful rule.¹⁴⁸

Then the question arises as to what makes an expert. A lay witness can give an opinion but the test used to be an expert is -- it is really an expert opinion rule -- an expert can testify to an opinion because he knows more than other people about this, and he can take information and process it and change its form a little bit and tell you its clear implications.¹⁴⁹

My rule of thumb test for whether or not a witness is qualified as an expert is simple. I hear the witness explain his experience, and if there is an objection to the qualifications I would explain to the jury that under the Federal Rules of Evidence an expert is any person who knows more about what he is talking about than I do.

146. FED. R. EVID. 701, *supra* note 144. Rule 701 now allows a lay witness to testify as to his or her opinions that are rationally based upon their perception that will aid in making the testimony of that witness more clear or the determination of a fact more clear. *Id.* Thus, an objection that a lay witness is using his or her mind will usually not be sustained. *Mattison v. Dallas Carrier Corp.*, 947 F.2d 95, 110 (4th Cir. 1991). In *Mattison*, the trial court allowed over objection the testimony of a lay witness' opinion "about the adequacy of emergency flashers. . . ." *Id.* The Fourth Circuit held that where Rule 701 is satisfied, a lay witness can give his or her opinion and thus the objection was properly overruled. *Id.*

147. FED. R. EVID. 701(a). *See supra* note 144.

148. *See, e.g.*, *United States v. Rea*, 958 F.2d 1206, 1215 (2d Cir. 1992) ("Rule 701's authorization of lay opinion testimony was adopted because '[w]itnesses often find difficulty in expressing themselves in language which is not that of an opinion or conclusion.'") (citation omitted).

149. *See* FED. R. EVID. 702 (stating that a witness qualifies as an expert by knowledge, skill, experience, training or education); *Scariati v. St. John's Queens Hosp.*, 172 A.D.2d 817, 820, 569 N.Y.S.2d 189, 191 (2d Dep't 1991) (stating that New York's common law approach provides for qualification where the expert "is skilled in the profession or field to which the subject relates, and that such skill was acquired from study, experience or observation") (citation omitted).

This witness obviously does, so he is qualified to testify. It does not mean that you have to believe him.

The second thought concerns the idea that evidence is based upon how people think and perceive things and process it in their minds. However, we do not really know too much about how the hidden mind works.