## Articles

# THE RECOGNITION OF AN ACCUSED'S CONSTITUTIONAL RIGHT TO INTRODUCE EXPERT TESTIMONY ATTACKING THE WEIGHT OF PROSECUTION SCIENCE EVIDENCE: THE ANTIDOTE FOR THE SUPREME COURT'S MISTAKEN ASSUMPTION IN *CALIFORNIA V. TROMBETTA*

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"What the People seek . . . is not an escape from an unfair disadvantage, but the perpetuation of an unfair advantage."[1]

*California v. Trombetta*[2] is one of the leading Supreme Court precedents defining the scope of an accused's constitutional right to discovery. In *Trombetta*, the accused was charged with driving while intoxicated. Shortly after his arrest, the accused submitted to an Intoxilyzer test to measure his blood alcohol concentration (BAC). The test indicated that the accused's BAC exceeded 0.10 percent, the level which triggered California's statutory presumption of intoxication.[3] The police could have used the technological state-of-the-art, a field crimper-indium tube encapsulation kit, to preserve a sample of the accused's breath. The police, however, neglected to do so.

Before trial, the accused moved to suppress all prosecution testimony about the results of his Intoxilyzer test.[4] The accused argued that the police failure to preserve a breath sample violated his constitutional right to present a defense.[5] If the police had saved a breath sample, a defense expert could have retested the accused's breath. A retest might have exculpated the accused by yielding a different, lower BAC. The accused contended that the government's

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1. People v. Lepine, 215 Cal. App. 3d 91, 101, 263 Cal. Rptr. 543, 548 (1989).
2. 467 U.S. 479 (1984).
3. *Id.* at 482.
4. *Id.*

failure to save a breath sample denied his due process discovery rights. As a sanction for the denial, the accused urged the Court to suppress all testimony about the inculpatory Intoxilyzer test result.

On certiorari, the Supreme Court rejected the accused's contention. The Court found that the police acted in good faith; when they tested the accused, it was not apparent to them that a second breath sample would have been exculpatory.[6] Quite to the contrary, since the initial test was inculpatory, the police were entitled to assume that a retest would have produced additional incriminating evidence.[7] Writing for the Court, Justice Marshall summarized the evidence that the Intoxilyzer is an accurate scientific test.[8] That evidence convinced the Court "that the chances are extremely low that preserved samples would have been exculpatory."[9] In the Court's judgment, the exculpatory value of the lost evidence was too speculative and conjectural.[10]

Despite the general reliability of the Intoxilyzer, Justice Marshall recognized that it was possible that a retest of a second breath sample would have been exculpatory. He acknowledged that the accused had the right to attempt to prove that "the Intoxilyzer results . . . were inaccurate. . . ."[11] The Justice, however, reasoned that the accused had "alternative means" of attacking the prosecution's Intoxilyzer evidence.[12] He gave three examples. First, the accused could attempt to show "faulty calibration" of the instrumentation.[13] Justice Marshall noted that under state law, the accused had a right to inspect not only the Intoxilyzer machine itself but also the records of the machine's weekly calibration tests.[14] Second, the accused could try to demonstrate "extraneous interference with machine measurements."[15] The accused could offer evidence that radio waves might have interfered with the machine or that as part of a diet, he had consumed chemicals which the Intoxilyzer might misread as alcohol.[16] Finally, the accused could try to establish that there had been operator error.[17] The accused had the opportunity to cross-examine the police officer who conducted the test to prove that the test had been improperly administered.[18] The Justice acknowledged that there must be a fair, adversary

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5. *Id.* at 485.
6. *Id.* at 489.
7. *Id.*
8. *Id.*
9. *Id.*
10. In Arizona v. Youngblood, 488 U.S. 51, 57 (1988), the Court commented on the value of the lost evidence in *Trombetta*. The Court stated that "no more can be said than that it could have been subjected to tests, the results of which might have exonerated the defendant." *Id. See also* Note, *Arizona v. Youngblood: Adherence to a Bad Faith Threshold Test Before Recognizing a Deprivation of Due Process*, 34 SO. DAK. L. REV. 407 (1989) (noting that the in *Trombetta* and *Youngblood*, the Court emphasized the speculative character of the lost evidence).
11. *Trombetta*, 467 U.S. at 490.
12. *Id.*
13. *Id.*
14. *Id.*
15. *Id.*
16. *Id.*
17. *Id.*
18. *Id.*

balance[19] at trial. However, given these alternatives, that balance could be maintained even though the accused had been deprived of potentially exculpatory testimony.

Four years later in *Arizona v. Youngblood*,[20] the Supreme Court revisited the *Trombetta* issue. In *Youngblood*, the accused was charged with kidnapping, assault, and molestation of a young child. After his release by his captor, the child was taken to a hospital. Hospital personnel collected evidence, including the child's clothing and samples such as saliva specimens. The personnel included the samples in a sexual assault kit which they properly refrigerated for preservation. They neglected, however, to take any steps to preserve the clothing. Although crime laboratory personnel later examined the samples, they failed to apply certain scientific techniques such as sophisticated genetic marker tests[21] "that might have completely exonerated" the accused.[22] There were also body fluid stains on the child's clothing, but the stains were untestable due to the failure to properly preserve the clothing.[23]

As in *Trombetta*, the accused in *Youngblood* argued that he had been denied his constitutional discovery rights. Once again, the defense argument failed. In the course of the majority opinion, Chief Justice Rehnquist cited *Trombetta* and reiterated the Court's earlier reasoning.[24] The Court reaffirmed its belief that "the chances that preserved samples would have exculpated the defendants were slim."[25] In part for that reason, the unavailability of defense expert testimony about a retest of the samples did not render Youngblood's trial fundamentally unfair. As in *Trombetta*, the Court added that while the accused may not have had the benefit of the ideal evidence of a retest, the accused had "alternative means" of proof available.[26] In the last sentence of his opinion, the Chief Justice asserted that "the defendant is free to argue to the finder of fact that a . . . test would have been exculpatory, but the police do not have a constitutional duty to perform any particular tests."[27]

In both *Trombetta* and *Youngblood*, the Court assumed that defense evidence attacking the weight of prosecution scientific testimony would generally be admissible. The Court plainly assumed that although the trial judge might permit the prosecution to introduce inculpatory scientific testimony such as an Intoxilyzer test result, the judge would allow the defense to rebut and respond in kind. That assumption is a vital link in the Court's line of argument to the conclusion that the accused's inability to retest the physical evidence does not upset the essential balance and fairness of the adversary system. To be sure,

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19. *Id. See generally* S. LANDSMAN, READINGS ON ADVERSARIAL JUSTICE: THE AMERICAN APPROACH TO ADJUDICATION (1988); Younger, *Sovereign Admissions: A Comment on United States v. Santos*, 43 N.Y.U. L. REV. 108 (1968); Goldstein, *The State and the Accused: Balance of Advantage in Criminal Procedure*, 69 YALE L.J. 1149 (1960).

20. 488 U.S. 51.

21. For a general discussion of genetic marker tests, see P. GIANNELLI & E. IMWINKELRIED, SCIENTIFIC EVIDENCE 565-632 (1986).

22. 488 U.S. at 55.

23. *Id.*

24. *Id.* at 56.

25. *Id.* The Court notes, however, that "here, unlike Trombetta, the State did not attempt to make any use of the materials in its own case in chief." *Id.*

26. *Id.*

27. *Id.* at 59.

the accused does not have the best of all possible worlds; the government's destruction or contamination of the physical evidence precludes the accused from offering retest evidence to show that the prosecution's earlier test was in error. According to the Court's assumption, however, the accused can resort to other effective kinds of rebuttal testimony to attack the weight of the prosecution's test evidence.

The rub is that the Court's assumption is mistaken. When the police destroy or contaminate the physical evidence after the initial inculpatory test, the accused is necessarily limited to two types of rebuttal evidence: generalized testimony about the unreliability of the scientific technique in question or speculative testimony about potential errors by the crime laboratory technicians in performing the initial test. In *Trombetta* and *Youngblood*, the Court failed to realize that under well-settled doctrines in many jurisdictions, these two types of evidence are vulnerable to prosecution evidentiary objections. In short, the defense may be unable to present the rebuttal evidence needed to maintain a fair balance in the adversary system.

The thesis of this article is that the Court should announce that the accused has a constitutional right to introduce expert testimony that can generate a reasonable doubt by impeaching the weight of prosecution scientific evidence. The first part of this article critiques the Court's assumption in *Trombetta* and *Youngblood* that defense rebuttal evidence will be admissible as a matter of course. This part of the article not only demonstrates that prosecutors can theoretically object to the admission of defense rebuttal evidence; it also documents that in some jurisdictions, trial and appellate courts have already sustained such objections. The second part of the article advances the argument that the Court should restore the balance of the adversary system by conferring on the accused a constitutional right to introduce expert testimony attacking the weight of prosecution scientific evidence. The article concludes by calling on the Court to end the "unfair advantage"[28] which the prosecution currently enjoys because of the Court's mistaken assumption in *Trombetta*.

## I. THE EVIDENTIARY OBJECTIONS TO GENERALIZED AND SPECULATIVE DEFENSE ATTACKS ON THE WEIGHT OF PROSECUTION SCIENTIFIC TESTIMONY

In *Trombetta* situations in which the police destroy or contaminate physical evidence after an initial inculpatory scientific test of the evidence, the defense's inability to retest the evidence prevents the accused from offering the best rebuttal evidence. The condition of the physical evidence makes it impossible for the accused to present a defense expert's testimony about a carefully conducted second test of the same evidence. The unavailability of the evidence for retesting forces the accused to resort to two, clearly inferior, types of rebuttal testimony. The accused can offer generalized[29] testimony about the unreliability of the scientific test. The accused, for example, might attempt to introduce testimony about the test's inherent margin of error[30] or the standard

28. *Lepine*, 215 Cal. App. 3d at 101, 263 Cal. Rptr. at 548.
29. *Id.* at 96, 263 Cal. Rptr. at 545-46.
30. *E.g.*, Barcott v. State, 741 P.2d 226, 228 (Alaska 1987).

deviations computed in past tests.[31] Alternatively, the accused can proffer more particularized, but more speculative testimony. Justice Marshall's opinion in *Trombetta* is suggestive. According to the Justice, the defense could offer evidence of several factors — such as the presence of a source of radio waves in the test area or operator errors — to attack the weight of the prosecution's Intoxilyzer testimony.[32] Since the defense experts could not retest the physical samples to conclusively demonstrate that the earlier test was in error, the defense experts can merely conjecture that the factor in question might have distorted the outcome of the earlier test.

In the past, commentators observed that defense counsel often find it difficult to introduce evidence attacking the weight of prosecution scientific testimony.[33] *Trombetta* compounds this difficulty. It is predictable that in some jurisdictions, defense counsel will find it impossible to introduce the types of evidence that *Trombetta* forces the defense to rely on. These types of testimony are vulnerable to three evidentiary objections[34] — objections which some prosecutors have already made and which some judges have already sustained.[35]

### *A. The Defense Evidence Attacking the General Reliability of the Scientific Technique Is Irrelevant Because the General Reliability of the Technique Is Conclusively Presumed*

It is axiomatic that an item of evidence must be logically relevant to be admissible. In the words of Federal Rule of Evidence 401, "[e]vidence which is not relevant is not admissible."[36] Suppose, for example, that the prosecution offers scientific testimony to establish that the accused was driving while drunk. The government charges the defendant with the violation of a statute proscribing driving with a certain breath alcohol concentration. The prosecution evidence is a breath alcohol test. In its case-in-chief, the defense offers expert testimony about the difficulty of converting a *breath* alcohol reading into a *blood* alcohol reading. The trial judge can exclude the testimony as irrelevant.[37] The defense testimony would be relevant if the statute criminalized driving with a certain blood alcohol level, and the prosecution offered the breath alcohol reading as evidence of the accused's blood alcohol level.[38] In this hypothetical, however, the statute directly criminalizes driving with a breath alcohol exceeding a specified level. Thus, "there is no need to assume any conversion ratio between blood alcohol and breath . . . alcohol."[39] The

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31. Davis v. Commonwealth, 8 Va. App. 291, 293-94, 381 S.E.2d 11, 12 (1989).
32. *Trombetta*, 467 U.S. at 490.
33. Kurzman & Fullerton, *Drug Identification*, in SCIENTIFIC AND EXPERT EVIDENCE 521, 554-56 (E. Imwinkelried 2d ed. 1981); Risinger, Denbeaux & Saks, *Exorcism of Ignorance as a Proxy for Rational Knowledge: The Lessons of Handwriting Identification 'Expertise,'* 137 U. PA. L. REV. 731, 770-71 (1989).
34. *Lepine*, 215 Cal. App. 3d at 94, 263 Cal. Rptr. at 544 (the prosecution objected to the defense evidence as "irrelevant, speculative and potentially confusing").
35. *Id. See also* People v. Thompson, 215 Cal. App. 3d Supp. 7, 265 Cal. Rtpr. 105, (Dept. Super. Ct. 1989).
36. FED. R. EVID. 401.
37. State v. Brayman, 110 Wash. 2d 183, 191, 205, 751 P.2d 294, 298, 305 (1988).
38. Imwinkelried, *The Basic Legal Challenges to Per Se Statutes: Admissibility, Sufficiency and Constitutionality*, 1 D.W.I.J. 77, 90-93 (July/Aug. 1986).
39. *Id.* at 92.

defense expert testimony therefore fails the threshold standard for logical relevance.

In other cases, however, the prosecution opposes the admission of the defense testimony even though the defense testimony obviously satisfies the threshold test. Assume, for instance, that the jurisdiction's statute criminalizes driving with a particular blood alcohol level. Again the prosecution relies on breath test evidence to prove up the offense. As in the previous hypothetical, the defense offers expert testimony about the difficulty of converting a breath alcohol reading into a blood alcohol measurement. To convert a breath reading into a blood alcohol measurement, breath testing devices such as the Intoxilyzer assume that a person has the same amount of alcohol in one part of blood as he or she has in 2,100 parts of breath — a conversion ratio.[40] Empirical studies, however, establish that some persons have ratios higher than 1:2,100 while many have lower ratios.[41] When the prosecution offers breath test evidence to prove a blood alcohol offense, general defense testimony about the range of conversion ratios is indisputably relevant.

In most jurisdictions, when a defendant is charged with a blood alcohol offense, the courts not only recognize the relevance of general testimony about the unreliability of the scientific technique; they construe their drunk driving statutes to permit the defense to introduce such testimony to attack the weight of prosecution breath test evidence.[42] However, a number of courts come to a contrary conclusion. In these jurisdictions, the courts found a conclusive presumption regarding the accuracy of breath testing devices — rendering general testimony about the range of conversion ratios "irrelevant" and inadmissible.

These courts invoke two theories to justify the exclusion of general rebuttal testimony. Some courts interpret the governing state statutes as erecting a conclusive presumption regarding the reliability of the scientific device the prosecution testimony is based on.[43] These courts have concluded that their

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40. *Id.*

41. *Id.* at 91-92.

42. Fuenning v. Super. Ct. in & for Cty. of Maricopa, 139 Ariz. 590, 596, 680 P.2d 121, 127 (1984) ("the defendant may attack the accuracy of the test on any relevant ground, including inherent margin of error"); Burg v. Municipal Court, 35 Cal. 3d 257, 266 n.10, 673 P.2d 732, 737 n.10, 198 Cal. Rptr. 145, 149 n.10 (1983); *Lepine*, 215 Cal. App. 3d at 94, 100, 263 Cal. Rptr. at 544, 548-49; *Thompson*, 215 Cal. App. 3d Supp. at 13, 265 Cal. Rptr. at 108 ("several states . . . allow general evidence refuting the accuracy and reliability of breath test readings to go to the trier of fact"); People v. Cortes, 214 Cal. App. 3d Supp. 12, 18, 263 Cal. Rptr. 113, 115-16 (Dept. Super. Ct. 1989) ("Evidence of the range of individual blood-breath ratios cannot be excluded"); People v. Brown, 143 Misc. 2d 270, 274-75, 540 N.Y.S.2d 650, 653 (Crim. Ct. 1989) ("The margin of error in the breathalyzer test should be considered by the trier of fact in deciding whether the evidence sustains a finding of guilt beyond a reasonable doubt."). *See also Davis*, 8 Va. App. 291, 381 S.E.2d 11.

43. *See, e.g.*, People v. Herst, 197 Cal. App. 3d Supp. 1, 3, 243 Cal. Rptr. 83, 84 (Dept. Super. Ct. 1987) ("[g]eneral evidence of . . . a possibility of error in the partition ratio will not suffice to rebut this presumption"); *Lepine*, 215 Cal. App. 3d at 95, 263 Cal. Rptr. at 545 ("*Herst* supports the proposition that general evidence concerning partition ratio variability is irrelevant"); *Cortes*, 214 Cal. App. 3d Supp. at 16, 263 Cal. Rptr. at 114 (quoting *Herst*, 197 Cal. App. 3d. Supp. at 4 n.1, 243 Cal. Rptr. at 83, n.1, the court states that "[t]he jury should not consider any conclusions made by any witness regarding the Defendant's blood alcohol concentration based upon breath alcohol results which use a partition ratio other than 2100 to 1"); State v. Lowther, 740 P.2d 1017, 1020 (Haw. Ct. App. 1987) (commenting on *City of*

statutes manifest a conclusive[44] legislative determination[45] that the scientific technique is trustworthy. In these jurisdictions, the statutes render the scientific technique unassailable.[46] The courts thus bar general defense rebuttal evidence as irrelevant.[47]

Other jurisdictions rely on a different theory to reach the same result. These courts point out that when the accuracy of the scientific technique in question is generally accepted, the reliability of the technique is a proper subject for judicial notice.[48] There is authority that once a judge judicially notices a proposition, "evidence contradicting the truth of the fact is inadmissible."[49] Citing this authority, these courts reason that the judicial notice of the accuracy of a scientific technique bars the admission of testimony generally attacking the trustworthiness of the technique.[50] The end result is the same as under the statutory construction theory: Evidence attacking the general reliability of the scientific technique is deemed irrelevant and inadmissible.

As previously stated, if the police innocently destroy or contaminate physical evidence after an initial inculpatory scientific analysis of the evidence, Justice Marshall's opinion in *Trombetta* allows the prosecution to use testimony

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*Columbus*, 24 Ohio App. 3d 173, 174, 493 N.E.2d 1002, 1003 (1985), the court stated that the *City of Columbus* court in effect held that "the reliability of the Intoxilyzer has been legislatively resolved and is not subject to attack by Defendant"); State v. Vega, 12 Ohio St. 3d 185, 188-89, 465 N.E.2d 1303, 1305, 1307 (1984) (the statute manifests a "legislative determination" which renders "general [defense rebuttal] testimony" "nonrelevant"); *City of Columbus*, 24 Ohio App. 3d at 174, 493 N.E.2d at 1003-04. Commenting on *Vega*, 12 Ohio St. 3d 185, 465 N.E.2d 1303, the court declared that

> [a]n accused may not use expert testimony to attack the general reliability of intoxilyzers as valid, reliable breath-testing machines in view of the fact that the General Assembly has legislatively provided for the admission of such tests. . . . [T]he efficiency of [the] testing process is not subject to challenge, since it is presumed accurate. . . . [T]he trial court properly excluded testimony which challenged the ability of intoxilyzers to accurately measure the alcohol content of breath — for example, quarreling with ratios between breath-alcohol content and blood-alcohol content; the varying ability of persons to provide deep lung samples of breath; the margin of error expected of intoxilyzers.

*Id.*

44. *Davis*, 8 Va. App. at 298, 381 S.E.2d at 15 (the *Davis* Court found that while the use of the term "per se" suggests that blood alcohol level is conclusive proof it held that it is not. The court called the evidence a fact which creates a rebuttable presumption that the measurement reflects the blood alcohol concentration at the time of driving).

45. *Vega*, 12 Ohio St. 3d at 189, 465 N.E.2d at 1307.

46. *Lepine*, 215 Cal. App. 3d at 98, 263 Cal. Rptr. at 547.

47. *Id.* at 95, 263 Cal. Rptr. at 545.

48. *See, e.g.*, State v. Downie, 117 N.J. 450, 468, 569 A.2d 242, 251 (1990); Romano v. Kimmelman, 96 N.J. 66, 80, 474 A.2d 1, 9 (1984); People v. Donaldson, 36 A.D.2d 37, 40, 319 N.Y.S.2d 172, 176 (1971); State v. Johnson, 42 N.J. 146, 170-71, 199 A.2d 809, 822-23 (1964); State v. Manfredi, 577 A.2d 1338, 1339 (N.J. Super. 1990) (citing *Downie*, 117 N.J. 498, 569 A.2d 242); *Brown*, 143 Misc. 2d at 274, 540 N.Y.S.2d at 652; People v. Gower, 42 N.Y.2d 117, 121-22, 366 N.E.2d 69, 71, 397 N.Y.S.2d 368, 370 (Ct. App. 1977) (the court, however, does not use the term of art, "judicial notice").

49. C. MCCORMICK, EVIDENCE § 332, at 931 (3d ed. 1984).

50. *Downie*, 117 N.J. at 468-69, 569 A.2d at 251; *Brown*, 143 Misc. 2d at 273, 540 N.Y.S.2d at 652 ("Our neighboring state of New Jersey . . . found that the new scientific challenges to the breathalyzer regarding the variability of the 2100:1 breath-blood ratio were inadmissible. . . . The court held that in light of *Romano v. Kimmelman*, 96 N.J. 66, 474 A.2d 1 (1984), which requires that judicial notice be given to breathalyzer test results in drunk driving prosecutions, the new evidence could only be offered to make a record for a future appeal.").

about the analysis against the accused at trial. The Justice's opinion assumes that the accused will be able to maintain a fair adversarial balance at trial by offering rebuttal testimony. To rebut the prosecution evidence, the accused might resort to expert testimony about the general untrustworthiness of the scientific technique. As this subsection has demonstrated, however, in a growing number of jurisdictions Justice Marshall's assumption is wrong. By invoking a statutory construction or judicial notice theory, an increasing number of courts hold general defense testimony to be irrelevant and inadmissible.

### *B. Under the Rules Governing the Admissibility of Expert Opinions, Defense Testimony About the Potential Errors in the Initial Analysis of the Physical Evidence or the Possible Outcome of a Defense Retest Is Inadmissible Because Such Testimony Is Too Speculative*

When the police innocently destroy or contaminate physical evidence after an inculpatory scientific test, *Trombetta* leaves the defense only two options. To attack the weight of the prosecution's scientific test, the defense must offer either: (1) general testimony about the unreliability of the scientific test, or (2) more specific testimony about the errors the police criminalist might have committed or the outcome which a defense expert might have attained if a retest had been possible. The preceding subsection noted the difficulties the accused faces if the accused chooses option (1). The difficulty of introducing general testimony in many jurisdictions will pressure defense counsel to select the second option. Under the rules governing the admissibility of expert opinions in many jurisdictions, however, the prosecution may be able to block the admission of the more specific testimony. The *Trombetta* Court commented on the speculative character of the lost defense evidence.[51] Precisely because of its conjectural character, the admissibility of the defense evidence is readily assailable. The prosecution may succeed in urging two separate objections to the defense testimony.

#### *1. The First Objection: The Defense Expert Is Testifying in Response to a Hypothetical Question, and the Defense Has Failed to Offer Evidence of the Hypothetically Assumed Facts*

Assume that the prosecution expert has already testified to the inculpatory scientific test, or that the prosecution succeeded in introducing a laboratory report of the test under a hearsay exception such as the business entry doctrine.[52] When the expert testifies in person, the expert will likely claim that he or she "habitually"[53] follows proper test protocol or that they recall complying with the "standard" test procedure on the particular occasion.[54] When the prosecutor offers a laboratory report, the report will probably con-

51. *Youngblood*, 488 U.S. at 56 (commenting on *Trombetta*, 467 U.S. 479); Note, *supra* note 10.

52. *See generally* Giannelli, *The Admissibility of Laboratory Reports in Criminal Trials: The Reliability of Scientific Proof*, 49 OHIO ST. L.J. 671 (1988).

53. *See* FED. R. EVID. 406.

54. Imwinkelried, *The Constitutionality of Introducing Evaluative Laboratory Reports Against Criminal Defendants*, 30 HAST. L.J. 621, 644 (1979) [hereinafter *The Constitutionality of Introducing Evaluative Laboratory Reports Against Criminal Defendants*].

tain little information about the test procedures.[55] If the report says anything about test procedures, the report may contain the bald assertion that the analyst followed "correct" or "accepted" protocol. Given this state of the record, the accused may be hard pressed to introduce defense rebuttal testimony about potential errors in the prosecution test or the outcome a defense expert might have achieved on a retest.[56]

On this record, the defense expert must testify in response to a hypothetical question. Under the modern law of expert opinion testimony, there are only three types of permissible bases for an expert opinion: personally observed facts, hearsay reports customarily considered by practitioners of the expert's specialty, or the assumptions in a proper hypothetical question.[57] Although an expert may rest an opinion on factual data of which he or she has firsthand knowledge,[58] in *Trombetta* situations, the defense expert lacks personal knowledge of the manner in which the prosecution expert conducted the initial test. Most jurisdictions now permit experts to base an opinion on certain types of hearsay information,[59] but here the defense expert does not even have a hearsay report of any mistakes committed by the prosecution expert. The defense counsel therefore must attempt to base the defense expert's opinion on hypothetical assumptions about errors the prosecution analyst might have committed or a retest the defense expert might have performed.

The record, however, contains no evidence suggesting, much less supporting a finding, that the prosecution analyst erred in conducting the test. Nor is there any competent evidence of a defense retest. In *Trombetta* situations, there can be no retest because the police have already destroyed or contami-

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55. P. GIANELLI & E. IMWINKELRIED, *supra* note 21, § 3-2, at 87.

56. There might appear to be a method of mooting the problem of unproven, hypothetically assumed facts by cross-examining the prosecution witness. Some jurisdictions take the position that if an expert testifies in response to a hypothetical question on direct examination, the cross-examiner may vary the assumptions in the hypothesis even if there is no evidence in the record to support a finding of the new assumption. C. MCCORMICK, *supra* note 49, at 37 n.19; 4 F. BUSCH, LAW AND TACTICS IN JURY TRIALS 143 (1961). Some states permit the cross-examiner to pose a hypothetical question even when the expert did not testify in response to a hypothesis on direct. E. IMWINKELRIED, THE METHODS OF ATTACKING SCIENTIFIC EVIDENCE § 11-2(B), at 375-76 (1982) [hereinafter THE METHODS OF ATTACKING SCIENTIFIC EVIDENCE]; J. MCELHANEY, TRIAL NOTEBOOK 173 (1981). The defense can argue that it is entitled to put hypothetical questions to the prosecution's expert about the effect of possible errors on the test outcome even if on direct examination the expert did not testify on the basis of hypothetically assumed facts.

The accused, however, cannot be confident that the trial judge will accept this argument. The judge might foreclose the use of a hypothetical question on cross-examination. Although some jurisdictions permit the use of hypothetical questions on cross even when the expert did not rely on a hypothesis during direct examination, that view is not universal. J. MCELHANEY, *supra*, at 173. Even if the judge allows the use of a hypothetical question for the first time on cross-examination, the judge might treat the formal cross-examination as a functional direct examination. Thus, the cross-examiner is the questioner initially resorting to the hypothetical question technique. Consequently, the judge might insist that as on direct examination, the cross-examiner include assumptions in the hypothesis only if there is evidence in the record to sustain a finding of the truth of the assumption.

57. E. IMWINKELRIED, P. GIANNELLI, F. GILLIGAN & F. LEDERER, COURTROOM CRIMINAL EVIDENCE § 1407-10 (1987) [hereinafter COURTROOM CRIMINAL EVIDENCE]. *See also* Zaremski & Goldstein, *Hypothetical Questions and Discovery of Facts Underlying Opinion*, in FORENSIC SCIENCES ch. 5 (1990).

58. COURTROOM CRIMINAL EVIDENCE, *supra* note 57, at § 1407.

59. *Id.* at § 1410.

nated the physical evidence. An expert may base an opinion on assumed facts in a hypothetical question only when there is admissible evidence of the truth of the assumptions.[60] There need not be direct evidence of the truth of the assumption,[61] but the assumption must at least be inferable from the evidence in the record.[62] Although most decisions announcing the requirement for proof of the assumption are civil cases, there are criminal decisions imposing this requirement.[63] If the court strictly applies the requirement for proof of the hypothetically assumed facts,[64] the accused will be unable to introduce the defense expert's rebuttal testimony.

*2. The Second Objection: The Defense Expert's Opinion Lacks the Requisite Degree of Certainty to be Admissible*

Assume that the accused overcomes the first prosecution objection to the proposed defense rebuttal testimony. Under the expert opinion rules, the prosecution can renew the objection on an alternative ground that the defense expert's opinion lacks the required degree of certainty to qualify for admission. In most instances, even if the trial judge allows the defense expert to speculate about the impact of potential errors or the outcome of a possible retest, the expert will be unable to testify that the error would probably have affected the outcome of the initial inculpatory test or that a retest would certainly have been exculpatory. The expert can testify only that the error might have distorted the initial test or that on a retest an exculpatory outcome would have been a good possibility.

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60. Alabama Power Co. v. Robinson, 447 So. 2d 148, 152 (Ala. 1984); Edwards v. California Sports, Inc., 206 Cal. App. 3d 1284, 1287, 254 Cal. Rptr. 170, 171 (1988); Hyatt v. Sierra Boat Co., 79 Cal. App. 3d 325, 337-38, 145 Cal. Rptr. 47, 54 (1978); People v. Sundlee, 70 Cal. App. 3d 477, 484, 138 Cal. Rptr. 834, 837 (1977); Clark v. Ross, 284 S.C. 543, 552-53, 328 S.E.2d 91, 97-98 (Ct. App. 1985); C. MCCORMICK, *supra* note 49, at § 14; 3 B. WITKIN, CALIFORNIA EVIDENCE § 1849, at 1806 (3d ed. 1984).

61. C. MCCORMICK, *supra* note 49, § 14, at 37 .

62. *Clark*, 284 S.C. at 552-53, 328 S.E.2d at 97-98.

63. *E.g.*, *Sundlee*, 70 Cal. App. 3d at 484, 138 Cal. Rptr. at 837.

64. Some courts relax the requirement when factors beyond the proponent's control preclude the proponent from gathering evidence to prove the truth of the assumed fact. Vandermark v. Ford Motor Co., 61 Cal. 2d 256, 391 P.2d 168, 37 Cal. Rptr. 896 (1964), is illustrative. In *Vandermark*, the plaintiff brought a personal injury action against an automobile dealer and manufacturer. The plaintiff sustained injuries when he lost control of the car which one defendant sold to him and which the other defendant manufactured. A key issue at trial was the cause of the failure of the brake master cylinder piston to retract. Unfortunately, the damage to the vehicle, caused by the accident, prevented the plaintiff's expert from definitively determining whether the master cylinder assembly had been properly installed and adjusted before the accident. Nevertheless, at trial the expert attempted to opine about the possible causes of the failure. The trial judge struck the opinion as speculative. The appellate court held that the trial judge erred. In so holding, the court stated:

> [P]laintiffs were entitled to establish the existence of a defect and defendants' responsibility therefor by circumstantial evidence, particularly when, as in this case, the damage to the car in the collision precluded determination whether or not the master cylinder assembly had been properly installed and adjusted before the accident.

*Id.* at 260, 391 P.2d at 170, 37 Cal. Rptr. at 898. *See also* People v. Guntert, 126 Cal. App. 3d Supp. 1, 10, 179 Cal. Rptr. 426, 430 (Dept. Super. Ct. 1981) (the court should consider "whether a party offering . . . evidence had had a reasonable opportunity to investigate evidence of the condition at a prior time").

If the defense expert proposes to testify along these lines, the prosecution may persuade the court to exclude the testimony. The traditional, common-law view required that the expert vouch that his or her opinion was a reasonable scientific certainty or probability.[65] Under this view, an opinion couched as a mere possibility is automatically inadmissible.[66] The Federal Rules of Evidence do not expressly codify the traditional view,[67] and many courts no longer enforce an invariable requirement that expert opinions be stated as probabilities or certainties to be admissible.[68] In these jurisdictions, there is no hard-and-fast, categorical rule excluding opinions stated as possibilities.

A careful reading of the published opinions, however, indicates that, as in the case of the erroneous report of Samuel Clemens' demise, the reports of the "death" of the traditional, common-law view are exaggerated. Many courts continue to exclude opinions which fall short of expressing a probability or certainty.[69] There are numerous civil[70] and criminal[71] decisions permitting or mandating the exclusion of such opinions. These opinions have even been excluded in jurisdictions which have adopted the Federal Rules of Evidence. Some courts cite Federal Rule of Evidence 403 as authority.[72] Rule 403 authorizes the trial judge to exclude relevant evidence when the judge concludes that the attendant probative dangers substantially outweigh the probative value of the evidence.[73] These courts argue that opinions couched as mere possibilities possess minimal probative worth. Other courts look to Federal Rule 702 as authority.[74] Rule 702 provides that expert opinions are admissible only when they will assist the trier of fact.[75] These courts contend that an opinion stated as a mere possibility will be unhelpful to the jury.

Like the requirement for independent proof of hypothetically assumed facts, courts' reluctance to admit expert opinions couched as possibilities may prove to be an insurmountable barrier for an accused offering expert testimony to attack the weight of prosecution scientific evidence. Before the defense

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65. THE METHODS OF ATTACKING SCIENTIFIC EVIDENCE, *supra* note 56, at § 6-6(C)
66. *Id.* § 6-6(C), at 221.
67. *See* FED. R. EVID. 702-04.
68. R. CARLSON, E. IMWINKELRIED & E. KIONKA, MATERIALS FOR THE STUDY OF EVIDENCE 444 (2d ed. 1986) [hereinafter MATERIALS FOR THE STUDY OF EVIDENCE]; COURTROOM CRIMINAL EVIDENCE, *supra* note 57, at § 1411.
69. *See, e.g.*, Mayhew v. Bell S.S. Co., 917 F.2d 961 (6th Cir. 1990). *See also* Joseph, *Less Than Certain Medical Testimony*, 14 TRIAL 51 (Jan. 1978).
70. Brown v. Parker-Hannifin Corp., 919 F.2d 308, 311-12 (5th Cir. 1990); Lanza v. Poretti, 537 F. Supp. 777 (E.D. Pa. 1982); Vuocolo v. Diamond Shamrock Chemicals Co., 240 N.J. Super. 289, 573 A.2d 196 (1990); Becker v. Lake County Memorial Hosp. West, 53 Ohio St. 3d 202, 560 N.E.2d 165 (1990); Collins by Collins v. Straka, 164 Ill. App. 3d 355, 361, 517 N.E.2d 1147, 1151 (1987); Garza v. Keillor, 623 S.W.2d 669, 672 (Tex. Ct. App. 1981).
71. *E.g.*, United States v. Bowers, 660 F.2d 527, 529 (5th Cir. 1981); State v. Clark, 324 N.C. 146, 159, 377 S.E.2d 54, 62-63 (1989); People v. Babbitt, 45 Cal. 3d 660, 684-86, 755 P.2d 253, 264-66, 248 Cal. Rptr. 69, 80-81 (1988); Welch v. State, 677 S.W.2d 562 (Tex. Ct. App. 1984).
72. *E.g.*, Lohrmann v. Pittsburgh Corning Corp., 782 F.2d 1156, 1160 (4th Cir. 1986).
73. FED. R. EVID. 403.
74. *E.g.*, Brown v. Parker-Hannifin Corp., 919 F.2d 308, 311-312 (5th Cir. 1990); Nelson v. Trinity Medical Center, 419 N.W.2d 886, 892 (N.D. 1988).
75. FED. R. EVID. 702.

expert states a final opinion, the prosecutor can take the witness on voir dire[76] and force the expert to concede that her opinion falls short of probability or certainty. Armed with that concession, the prosecutor can then argue that the opinion is inadmissible. It is predictable that, in some cases, the argument will prevail.[77]

### *C. The Trial Judge Has Discretion to Exclude Defense Rebuttal Testimony When the Trial Judge Concludes that the Probative Dangers Incidental to the Admission of the Testimony Outweigh the Probative Value of the Testimony*

The last subsection noted that the prosecutor may convince the trial judge to exclude the defense rebuttal testimony solely because of the speculative character of the testimony. Even if the judge is unwilling to bar the testimony on that ground alone, the speculative character of the testimony gives rise to another prosecution argument. The prosecutor can invoke the common-law legal relevance doctrine[78] or the modern codification of the doctrine, Rule 403, in a Federal Rules jurisdiction. Rule 403 reads:

> Although 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.[79]

Suppose that in our hypothetical the trial judge overrules the prosecutor's objection that under the expert testimony rules, the defense witness' opinion is automatically inadmissible because the opinion is too speculative. The prosecutor can nevertheless argue that the judge should factor the speculative character of the testimony into a discretionary balancing under Rule 403. Like the preceding prosecution objections, this argument has a decent prospect for success.

#### *1. The Probative Value Component of Rule 403 Balancing*

The prosecutor is certainly correct in arguing that the judge may consider the speculative character of the defense testimony in assessing the probative value of the testimony. Virtually all courts and commentators agree that in gauging probative worth under Rule 403, the judge may consider the facial vagueness or uncertainty of the proposed testimony.[80] A certain or probabilistic opinion possesses more probative value than one couched as a possibility. Thus, the unavoidably speculative character of the defense testimony cuts against its admissibility under Rule 403.

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76. COURTROOM CRIMINAL EVIDENCE, *supra* note 57, at §§ 131-33.

77. In explaining its decision to exclude evidence attacking the general reliability of the breathalyzer, the Ohio Supreme Court agreed with the dissent in the court below which characterized the evidence as "speculative." *Vega*, 12 Ohio St. 3d at 186, 465 N.E.2d at 1305. Similarly, in *Lepine*, 215 Cal. App. 3d at 94-95, 263 Cal. Rptr. at 544-45, the trial judge sustained a prosecutor's objection that defense rebuttal evidence was "speculative."

78. MATERIALS FOR THE STUDY OF EVIDENCE, *supra* note 68, at Ch. 16.

79. FED. R. EVID. 403.

80. Imwinkelried, *The Meaning of Probative Value and Prejudice in Federal Rule of Evidence 403: Can Rule 403 Be Used to Resurrect the Common Law of Evidence?*, 41 VAND. L. REV. 879, 884-85 (1988).

If the accused relies on testimony about the general unreliability of the scientific technique rather than more particularized, speculative testimony about the mistakes the laboratory technician might have committed, the prosecutor can argue that the circumstantial character of the testimony diminishes its probative value. Courts and commentators also concur that in Rule 403 analysis, the judge may consider the circumstantial character of the evidence.[81] The ultimate issue to be resolved by the trier of fact is whether the technician followed test protocol on the specific occasion when the technician analyzed the physical evidence in question. In *Trombetta* cases, the accused rarely has direct evidence of an error by the technician. General testimony about the untrustworthiness of the scientific technique is merely circumstantial proof that the outcome of the initial police test was in error. Even if the jury believes the general testimony, the jury must make a further inference as to the specific test the technician conducted. The larger the number of intermediate inferences the jury must draw, the greater the probability that the jury will commit inferential error, and the lower the probative worth of the evidence.[82] To bolster its argument under Rule 403, the prosecution can point to favorable language in several New Jersey opinions. In one case, the New Jersey Supreme Court stated that the probative value of general testimony about the unreliability of the Drunkometer was "almost nil."[83] In another case, the same court asserted that general testimony about the unreliability of the breathalyzer "has negligible probative value."[84]

*2. The Probative Danger Component of Rule 403 Balancing*

The judge's assessment of the probative value of the evidence is only the starting point in Rule 403 analysis. The judge must also identify the probative dangers that may outweigh the probative value.[85] In *Trombetta* cases, the prosecutor can frequently make a plausible case that probative dangers substantially outweigh the probative worth of the defense testimony. The probative dangers, listed in Rule 403, include the risks of "confusion of the issues"[86] and "undue delay . . . [or] waste of time."[87]

In several cases in which prosecutors offered scientific evidence, prosecutors objected to the admission of defense rebuttal testimony because that testimony was "confusing."[88] In the *Brayman* case, the Washington Supreme Court noted that one of the state legislature's motivations for amending that jurisdiction's drunk driving statutes was a desire "to eliminate defense experts' testimony about blood-breath ratios."[89] The legislative history of the statute suggested to the court that the legislature had a justifiable fear that such defense

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81. 22 C. WRIGHT & K. GRAHAM, FEDERAL PRACTICE AND PROCEDURE: EVIDENCE § 5213, at 259-60 (1978).
82. *Id.* § 5214, at 271; Imwinkelried, *supra* note 80, at 885.
83. *Johnson*, 42 N.J. at 171, 199 A.2d at 823.
84. *Downie*, 117 N.J. at 453, 569 A.2d at 243 (citing *Johnson*, 42 N.J. at 171, 199 A.2d at 823).
85. MATERIALS FOR THE STUDY OF EVIDENCE, *supra* note 68, at 262.
86. FED. R. EVID. 403.
87. *Id.*
88. *E.g.*, *Lepine*, 215 Cal. App. 3d at 94-95, 263 Cal. Rptr. at 544-45.
89. *Brayman*, 110 Wash. 2d at 205, 751 P.2d at 305.

testimony would "confus[e] the jury."[90] The prosecutor's objection seems especially credible in *Trombetta* cases when the defense expert attempts to testify about errors the police technician might have committed or the outcome of a possible retest. Jurors could conceivably find it difficult to sort the testimony about what the technician did, what the technician might have done, and what a second analyst could have done during a retest.

A prosecutor might also argue that the presentation of the defense rebuttal testimony would be time-consuming. In *Brayman*, the court indicated that the state legislature was also concerned that attacks by defense experts on the weight of prosecution scientific evidence "dragg[ed] things out"[91] at trial. Trial and appellate courts alike are familiar with the horror stories of drawn out "battles of the experts" at trial.[92] In one case, the accused objected to the admission of an electrophoretic analysis of dried bloodstains.[93] The testimony about the reliability of electrophoresis consumed eight days of court time.[94] In another case involving a challenge to the admissibility of moving radar speedmeter evidence, the scientific testimony about the trustworthiness of moving radar required "over 2,000 pages" of trial transcript.[95] In the most famous DNA case to date, *People v. Castro*,[96] there were "approximately five thousand pages" of testimony and argument over the reliability of the DNA evidence, in particular the manner in which the laboratory technicians applied DNA typing technology in that case.

If the prosecutor persuades the trial judge to exercise discretion under Rule 403 to exclude defense rebuttal testimony, on appeal the accused will find it difficult to persuade an appellate court to reverse. The appellate courts give the trial judge broad latitude[97] and accord great deference to the trial judge's decision.[98] The appellate courts appreciate that balancing probative value against probative danger is a Procrustean task.[99] The trial judge cannot quantify the competing considerations.[100] The trial judge is in the position of a metaphysician weighing intangibles.[101] As a practical matter, appellate courts rarely second-guess trial court decisions under Rule 403.[102]

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90. *Id.*
91. *Id. See also* State v. Manfredi, 242 N.J. Super. 708, 710, 577 A.2d 1338, 1339 (1990) ("long trials complicated" by expert testimony).
92. Myers, *The Battle of the Experts: A New Approach to an Old Problem in Medical Testimony*, 44 NEB. L. REV. 539 (1965).
93. People v. Reilly, 196 Cal. App. 3d 1127, 242 Cal. Rptr. 496 (1987).
94. *Id.* at 1135, 242 Cal. Rptr. at 501.
95. State v. Aquilera, 25 Crim. L. Rep. (BNA) 2189 (Fla. County Ct., May 7, 1979).
96. 144 Misc. 2d 956, 957, 545 N.Y.S.2d 985, 986 (Supp. 1989).
97. United States v. Barron, 707 F.2d 125 (5th Cir. 1983).
98. Doty v. Sewall, 908 F.2d 1053, 1058 (1st Cir. 1990) (citing 1 S. CHILDRESS & M. DAVIS, STANDARDS OF REVIEW 233 (1986)).
99. Comment, *Evidence — Other Crime — Balancing Relevance and Need Against Unfair Prejudice to Determine the Admissibility of Other Unexplained Deaths as Proof of the Corpus Delicti and the Perpetrator's Identity*, 6 RUT.-CAM. L.J. 173, 177 (1974).
100. Teitelbaum & Hertz, *Evidence II: Evidence of Other Crimes as Proof of Intent*, 13 N.M.L. REV. 423, 433 (1983).
101. Hall, *The Trial of a Recidivist and Proof of Other Crimes*, CASE & COMMENT 47-48 (Sept.-Oct. 1979).
102. *Doty*, 908 F.2d at 1058; United States v. Simpson, 910 F.2d 154, 157 (4th Cir. 1990); *Barron*, 707 F.2d 125.

## II. AN ACCUSED'S CONSTITUTIONAL RIGHT TO PRESENT EXPERT TESTIMONY ATTACKING THE WEIGHT OF PROSECUTION SCIENTIFIC EVIDENCE

In *Trombetta*, the Supreme Court proceeded on the assumption that as a general proposition, even when the police innocently destroy or contaminate physical evidence after an initial inculpatory scientific test, the accused will have a fair opportunity to rebut the inculpatory test result at trial. The Court assumed that the rebuttal testimony would be admissible. As Section I demonstrated, however, in many cases the Court's assumption will prove to be mistaken. The unavailability of the physical samples for retest forces the defense to fall back on two types of rebuttal evidence: general testimony about the unreliability of the scientific technique in question and more specific, but speculative testimony about the initial test and a potential retest. These kinds of rebuttal testimony are vulnerable to prosecution objections under the statutory and decisional evidence law in many jurisdictions.

Defense counsel recently began to realize the evidentiary problems caused by *Trombetta*. To surmount those problems, they are now arguing that they have a constitutional right to override the statutory and decisional evidence law in their jurisdiction and introduce the rebuttal testimony. Most courts have flatly rejected this argument.[103] A few judges, however, have agreed that the defense argument has merit. By construing state statutes to permit the admission of defense rebuttal evidence, some courts have endeavored to moot the defense argument.[104] In other cases, dissenters argued in favor of the existence of such a constitutional right.[105] In still other cases, the courts recognized the right in dictum.[106] Most importantly, however, a handful of cases from Alaska, California, and Hawaii squarely hold that the accused has this constitutional right.[107]

The thesis of this article is that this emerging line of authority reaches the right result. In *Trombetta*, the Court expressed its concern for the maintenance of a fair, adversary balance in the criminal justice system. The Court believed

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103. *E.g.*, *Vega*, 12 Ohio St. 3d at 186, 465 N.E.2d at 1305 ("an accused is not denied his constitutional right to present a defense" by the exclusion of evidence attacking the general reliability of the breath-testing instrument).

104. *E.g.*, People v. Mertz, 68 N.Y.2d 136, 146, 497 N.E.2d 657, 662, 506 N.Y.S.2d 290, 295 (1986) ("To foreclose a defendant's introduction of evidence seeking to establish that his BAC while operating was less than .10 may raise doubt as to constitutionality. . . .").

105. *E.g.*, *Vega*, 12 Ohio St. 3d at 190, 465 N.E.2d at 1308 (1984) (Brown, J., dissenting) (the accused has a "constitutional right to present all relevant evidence in his defense to the crime with which he is charged").

106. *E.g.*, Champion v. Dept. of Public Safety, 721 P.2d 131 (Alaska 1986) (This case involved the failure of the state to preserve a breath sample rather than excluding defense rebuttal evidence. The court held that the failure denied the motorist a fair hearing and thus violated due process).

107. *See, e.g.*, Barcott v. Dept. of Public Safety, 741 P.2d 226, 228-29 (Alaska 1987) ("due process requires consideration of the margin of error inherent in the breath testing procedure used in this case; . . . the defendant has a constitutionally guaranteed right to attack the accuracy of a breath alcohol test"); *Thompson*, 215 Cal. App. 3d Supp. at 14, 265 Cal. Rptr. at 109 ("the exclusion of the general evidence denied appellant a fair trial"); *Lowther*, 740 P.2d at 1019, 1021 ("the trial court unconstitutionally excluded relevant expert testimony . . . proferred by Defendant").

that the balance could be maintained because the accused supposedly has "alternative means" available to rebut the prosecution evidence.[108] But as we have seen, the prosecution can upset the balance by blocking the admission of defense rebuttal testimony in many jurisdictions. The most direct method of reinstating the balance is to constitutionalize the accused's right to present the rebuttal evidence. The cases supporting this right have taken that step.

However, to date all the cases in the line of authority suffer from a common weakness: the failure to articulate a sound doctrinal basis for the recognition of the constitutional right. In one case, the court summarily announced that the exclusion of the rebuttal evidence was "unconstitutional."[109] Another court was content to declare in conclusory fashion that the exclusion denied the accused "a fair trial."[110] At most, the courts invoked "due process" as the source of this constitutional right.[111] The balance of this article attempts to place this line of authority on a sounder doctrinal footing by rationalizing the result under the accused's implied sixth amendment right to present reliable, critical evidence.[112] The following subsection presents the prima facie case for extending the accused's sixth amendment right to defense testimony rebutting prosecution scientific evidence. The second subsection demonstrates that the courts have already applied the accused's sixth amendment right to override the very types of evidentiary objections which prosecutors are now invoking to bar the admission of defense rebuttal testimony.

### *A. The Prima Facie Case for Extending the Accused's Sixth Amendment Right to Defense Expert Testimony Attacking the Weight of Prosecution Scientific Evidence*

Before 1967, statutory and common-law evidentiary rules were generally invulnerable to constitutional attack. The Supreme Court had not identified a constitutional theory for evaluating the validity of the rules. In 1967, however, the Court rendered its landmark decision in *Washington v. Texas*.[113] Washington was charged with murder. Another man named Charles Fuller had already been convicted of the same killing. At his trial, Washington attempted to call Fuller as a witness. Washington's attorney made an offer of proof that Fuller's testimony would exculpate Washington. The prosecutor, however, objected on the basis of two state statutes. The statutes provided that persons charged or convicted as co-participants in the same offense could not testify for one another. The trial judge sustained the prosecutor's objection, and a conviction followed.

In *Washington*, the Court held that the application of the statutes to bar Fuller's testimony violated Washington's constitutional rights. Chief Justice Warren wrote for the majority. As a threshold matter, Warren held that the fourteenth amendment due process clause incorporates the sixth amendment

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108. *Trombetta*, 467 U.S. at 490.
109. *Lowther*, 740 P.2d at 1019.
110. *Thompson*, 215 Cal. App. 3d Supp.at 14, 265 Cal. Rptr. at 109.
111. *Barcott*, 741 P.2d at 228; *Lowther*, 740 P.2d at 1019.
112. *See generally* E. IMWINKELRIED, EXCULPATORY EVIDENCE: THE ACCUSED'S CONSTITUTIONAL RIGHT TO INTRODUCE FAVORABLE EVIDENCE (1990) [hereinafter EXCULPATORY EVIDENCE].
113. 388 U.S. 14 (1967).

compulsory process guarantee. Warren next ruled that as a necessary implication from the express compulsory process guarantee, the accused has an implied right to present critical exculpatory testimony. Warren used *reductio ad absurdum* reasoning to justify the ruling; he asserted that it would be nonsensical to grant an accused a right to summon witnesses whom he could not even call to the witness stand. The Chief Justice stated that under the sixth amendment, the accused has a constitutional "right to put on the stand a witness who [is] physically and mentally capable of testifying to events that he has personally observed, and whose testimony [is] relevant and material to the defense."[114]

*Washington* dealt with a broad incompetency doctrine which purported to bar testimony by certain types of defense witnesses altogether. Because the case involved a blunderbuss incompetency doctrine, the Chief Justice's opinion left unanswered the question of whether the new sixth amendment right spends its force by placing the witness on the stand. "Did the right expend its force when it placed the defense witness on the stand? After the [accused] seated his witness, was he then bound by whatever exclusionary rules the legislatures and courts chose to apply" to the substance of the witness' testimony?[115] Or could the accused also invoke the right to attack evidentiary rules with a more limited exclusionary impact than an incompetence doctrine — rules such as hearsay which regulate the content of a witness' testimony? Many lower courts answered that question in the negative.[116] As the Illinois Supreme Court stated in a post-*Washington* decision, "[t]here is no suggestion in *Washington* that the admission of inadmissible hearsay is constitutionally required."[117]

The Supreme Court confounded the lower courts by its 1973 decision in *Chambers v. Mississippi*.[118] Like Washington before him, Chambers stood trial for murder. His theory of the case was that the real murderer was Gable McDonald. McDonald told three acquaintances that he perpetrated the crime. At trial, Chambers attempted to introduce the three acquaintances' description of McDonald's statements. Citing the hearsay rule, the prosecutor objected. The defense countered that McDonald's statements fell within the declaration against interest hearsay exception. The prosecutor, however, contended that Mississippi hearsay doctrine adhered to the hoary, common-law view admitting only declarations against pecuniary or proprietary interest. The prosecutor argued that McDonald's statements were inadmissible because they disserved only his penal interest. The trial judge sustained the objection.

After the state courts affirmed Chambers' conviction, the Supreme Court granted certiorari to decide, *inter alia*,[119] whether the trial judge's exclusion of the hearsay evidence was unconstitutional. The Court specifically cited

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114. *Id.* at 23.

115. Imwinkelried, Chambers v. Mississippi, *__U.S.__ (1973): The Constitutional Right to Present Defense Evidence*, 62 MIL. L. REV. 225, 240 (1973).

116. *E.g.*, People v. Scott, 52 Ill. 2d 432, 288 N.E.2d 478 (1972), *cert. denied*, 410 U.S. 941 (1973).

117. *Id.* at 439, 288 N.E.2d at 482.

118. 410 U.S. 284 (1973).

119. The trial judge also denied Chambers permission to treat McDonald as a hostile witness and use leading questions to interrogate him at trial. Chambers argued that the denial of

*Washington*[120] as authority for its conclusion that the trial judge's evidentiary ruling was constitutionally infirm. Writing for the majority, Justice Powell found that McDonald's statements were demonstrably reliable. The patently disserving character of the statements, their sheer number, and the presence of some corroboration of McDonald's guilt "provided considerable assurance of [the] reliability" of McDonald's statements.[121] Further, given Chambers' theory of defense, the excluded hearsay was "critical."[122]

In subsequent decisions, the Supreme Court and the lower courts have elaborated on the scope of this implied sixth amendment right.[123] The courts have gone to great lengths in enforcing that right. The courts, for example, have allowed accused to introduce testimony otherwise barred by the attorney-client privilege,[124] the medical privileges,[125] rape shield laws,[126] and various restrictions on the admissibility of impeachment evidence.[127]

Some of the cases recognizing the accused's constitutional right to present rebuttal testimony attacking prosecution scientific evidence make the sweeping assertion that the accused has a "constitutional right to present *all* relevant evidence in his defense to the crime with which he is charged."[128] Although the courts have gone far in protecting the accused's sixth amendment right, that assertion overstates the extent of the right. It would trivialize that right — and revolutionize criminal evidence law — to extend the right to "all relevant" defense evidence. The right is more limited. To trigger the right, the accused must establish two things. First, the accused must show that the evidence is highly material to the case. Courts generally confine the scope of the right to important or "crucial" evidence.[129] The trend in the case law is to apply the constitutional right to an item of defense evidence only if the item might generate reasonable doubt and affect the outcome of the trial.[130] In addition, the accused must make at least a minimal showing that the evidence is trustworthy.[131]

*1. The Materiality Prong*

In many cases, an accused offering rebuttal evidence to attack prosecution scientific evidence will be able to make the requisite showing. In a high percentage of the cases, the accused can demonstrate the requisite materiality. Crime laboratory facilities are overburdened.[132] Prosecutors typically do not

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permission violated his sixth amendment confrontation right. The Supreme Court accepted Chambers' argument. *Id.* at 295-98.

120. *Id.* at 302.
121. *Id.* at 300.
122. *Id.* at 302.
123. *See* EXCULPATORY EVIDENCE, *supra* note 112.
124. *Id.* at § 10-5.a.
125. *Id.* at §§ 10-5.c-d.
126. *Id.* at § 9-4.
127. *Id.* at ch. 8.
128. *Lowther*, 740 P.2d at 1021 (quoting the dissent in *Vega*, 12 Ohio St. 3d 185, 465 N.E.2d 1303).
129. EXCULPATORY EVIDENCE, *supra* note 112, § 2-4.a, at 49-50.
130. *Id.* § 2-4.b, at 50-55.
131. *Id.* § 2-4.a, at 41-47.
132. Peterson, Ryan, Houlden & Mihajlovic, *The Uses and Effects of Forensic Science in the Adjudication of Felony Cases*, 32 J. FORENSIC SCI. 1730, 1749-50 (1987).

go to the length of obtaining scientific evidence unless the evidence will help the prosecutor prove an important element of the charged offense. If the prosecution relies heavily on scientific evidence to prove such an element, even minimally probative defense rebuttal testimony can generate the reasonable doubt the accused needs to gain an acquittal.

In Judge Weinstein's famous survey of the federal trial judges in the Eastern District of New York, he attempted to determine their understanding of the standard of proof beyond a reasonable doubt.[133] The overwhelming majority responded that they equated the standard with a probability exceeding eighty-five percent. A significant number of the judges indicated that in their mind, the standard requires proof exceeding a ninety percent probability. Defense rebuttal testimony raising a fifteen percent or even ten percent probability of innocence might result in an acquittal. Defense rebuttal evidence raising any significant doubt about the reliability of the prosecution's scientific testimony should therefore satisfy the materiality prong of the test for triggering the accused's implied sixth amendment right.

Often, the accused will be able to establish such a significant doubt. There is a massive amount of hard evidence that misanalysis is common at forensic laboratories.[134] The published proficiency studies document an alarmingly high error rate. The Forensic Science Foundation conducted proficiency tests of questioned document examiners.[135] The percentages of error were in the double figures rather than in the single digits.[136] The incidence of error was so high that defense rebuttal testimony about these error rates could easily give a rational juror "cause for concern" if the prosecution relies primarily or exclusively on questioned document testimony to prove the defendant's identity as the perpetrator.[137] The prosecution often offers evidence of an immunoassay test of the accused's urine to establish that the accused had consumed a contraband drug. According to two researchers for the Office of Technology Assessment of the United States Congress, the proficiency studies of the immunoassay laboratories reveal that "error rates continue to be high."[138] A study conducted by the Centers for Disease Control (C.D.C.) yielded especially disturbing findings.[139] One of the laboratories participating in the C.D.C. study reported erroneous results on 66.5 percent of the 160 samples analyzed. Whenever the defense can demonstrate such high error rates for the scientific technique the prosecution is relying upon, the accused meets the materiality prong for invoking the sixth amendment right.

It is true that in almost all *Trombetta* cases, the defense expert must stop short of stating an opinion couched as a certainty or probability. But because the prosecution has the onerous burden of establishing guilt beyond a

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133. United States v. Fatico, 458 F. Supp. 388, 405-06 (E.D.N.Y. 1978).
134. *See generally* Giannelli, *supra* note 52.
135. Risinger, Denbeaux & Saks, *supra* note 33, at 738-51.
136. *Id.*
137. *Id.*
138. Miike & Hewitt, *Accuracy and Reliability of Urine Drug Tests*, 36 KAN. L. REV. 641, 651-57 (1988).
139. Hansen, Caudill & Boone, *Crisis in Drug Testing: Results of CDC Blind Study*, 253 J. A.M.A 2382 (1985).

reasonable doubt,[140] the accused can be acquitted by establishing even a good possibility of innocence. When the prosecution relies heavily on its scientific evidence to prove an essential element of the charged offense, a defense expert's opinion couched as a possibility can easily suffice to raise a reasonable doubt. The opinion would thus satisfy the materiality prong.

*2. The Reliability Prong*

The second prong mandates that the accused come forward with evidence establishing the trustworthiness of the rebuttal testimony. The lower courts split on the question of the required showing of reliability.[141] Some courts use *Chambers* as a benchmark and demand an impressive showing that the defense evidence in question is trustworthy.[142] In *Chambers*, the inference of the reliability of McDonald's hearsay statements was overpowering; several factors, including the number of McDonald's incriminating statements, pointed to the conclusion that his statements were trustworthy. The better view, however, is the position championed by Professor Westen. Professor Westen, the leading contemporary authority on the sixth amendment, has argued that the standard is laxer, essentially equivalent to the standard the Court employs to determine the admissibility of prosecution evidence under the confrontation clause.[143] In *Chambers*, the Court cited some of its earlier decisions evaluating the trustworthiness of prosecution hearsay under the confrontation clause as examples of showings of reliability sufficient to trigger the accused's sixth amendment right.[144] "*Chambers* stands for the proposition that evidence that is sufficiently reliable by constitutional standards to be introduced 'against' the accused is sufficiently reliable to be introduced 'in his favor.'"[145] When accused have challenged the reliability of prosecution evidence under the confrontation clause, the Court has accepted relatively minimal showings of the trustworthiness of the evidence.[146]

As in the case of the materiality prong, the accused will often be able to satisfy the reliability test for triggering the accused's sixth amendment right. Suppose that the accused offers a defense expert's testimony about the general unreliability of a scientific technique such as evidence of the technique's inherent margin of error.[147] The accused can validate the testimony by eliciting the defense expert's testimony that many, well-designed experiments have verified the margin of error.[148] Or assume that the accused attempts to

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140. *In re* Winship, 397 U.S. 358, 361 (1970).
141. EXCULPATORY EVIDENCE, *supra* note 112, § 2-4.a, at 41-47.
142. *Id.* § 2-4.a, at 42-44.
143. Westen, *The Compulsory Process Clause*, 73 MICH. L. REV. 71, 155 (1974).
144. *Id.*
145. *Id.*
146. EXCULPATORY EVIDENCE, *supra* note 112, § 2-4.a, at 44-47; Haddad, *The Future of Confrontation Clause Developments: What Will Emerge When the Supreme Court Synthesizes the Diverse Lines of Confrontation Decisions?*, 81 J. CRIM. L. & CRIMINOLOGY 77, 78, 83 (1990); *The Constitutionality of Introducing Evaluative Laboratory Reports Against Criminal Defendants*, *supra* note 53, at 629-35.
147. *E.g.*, *Barcott*, 741 P.2d at 228-29.
148. People v. Collins, 94 Misc. 2d 704, 710, 405 N.Y.S.2d 365, 369 (Sup. Ct. 1978) (excluding sound spectrography evidence because of the "preliminary and incomplete experimentation" with the underlying premises of the technique); State v. Smith, 50 Ohio App. 2d 183, 192, 362 N.E.2d 1239, 1245-46 (1976) (excluding testimony about a modification of the

introduce a defense expert's more specific testimony that the police analyst might have committed a particular type of error in conducting the test and that that error might have skewed the result. The accused could establish the reliability of this testimony by showing that in proficiency studies conducted by reputable testing agencies such as the Centers for Disease Control, the particular error is commonplace and frequently results in erroneous outcomes.

### *B. The Application of the Accused's Sixth Amendment Right to the Types of Evidentiary Doctrines Which Prosecutors Invoke to Block the Admission of Defense Rebuttal Testimony*

Even though the accused can construct a prima facie case for extending the sixth amendment right to the defense rebuttal testimony, the trial judge can sometimes justifiably exclude the testimony. The judge's conclusion that the accused has satisfied the materiality and reliability prongs does not end the analysis. The accused's sixth amendment right is not absolute.[149] In the *Washington-Chambers* line of authority, the Court has developed a balancing test to determine whether the accused's sixth amendment right overrides the jurisdiction's statutory and common-law evidentiary rules.[150] After the accused makes out a prima facie case for invoking the right, the judge must identify the competing government interest, that is, the rationale for the evidentiary rule. The judge then balances that interest against the accused's right.[151] Thus, even when the accused can make out a prima facie case, it is not a foregone conclusion that the accused's sixth amendment right will prevail over the evidentiary rules cited as bases for excluding defense rebuttal testimony. For several reasons, however, the accused's contention has an excellent chance of success.

One reason is the prevailing view that when the judge has a *bona fide* doubt about the proper way to strike the balance between the competing interests, "[t]he scales . . . are weighted in favor of the accused."[152] One commentator observed that the Supreme Court has "consistently" struck the balance in the accused's favor.[153] In the decided cases, the scales appear to be "loaded" in the accused's favor.[154] The appellate courts send trial judges a clear signal that in a "close" case, the judge should admit the defense testimony.[155] The Supreme Court twice upheld the accused's right even though doing so

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Harrison-Gilroy gunshot residue test because no one, "including [the witness], has ever conducted any experiments to attempt to objectively determine" the accuracy of the modified test); THE METHODS OF ATTACKING SCIENTIFIC EVIDENCE, *supra* note 56, § 4-4(B), at 123-24.

149. United States v. Bifield, 702 F.2d 342, 350 (2d Cir.), *cert. denied*, 461 U.S. 931 (1983); Hughes v. Matthews, 576 F.2d 1250, 1258 (7th Cir.), *cert. denied*, 439 U.S. 801 (1978).

150. EXCULPATORY EVIDENCE, *supra* note 112, at § 2-3.

151. *Id.*

152. Westen, *supra* note 143, at 107. *See also* Westen, *Confrontation and Compulsory Process: A Unified Theory of Evidence for Criminal Cases*, 91 HARV. L. REV. 567, 592 (1978).

153. Clinton, *The Right to Present a Defense: An Emergent Constitutional Guarantee in Criminal Trials*, 9 IND. L. REV. 711, 756 (1976).

154. Note, *Defendant v. Witness: Measuring Confrontation and Compulsory Process Against Statutory Communications Privileges*, 30 STAN. L. REV. 935, 990 (1978).

155. Commonwealth v. Drew, 397 Mass. 65, 75 n.10, 489 N.E.2d 1233, 1241 n.10 (1986).

necessitated overriding an evidentiary rule that was then the majority rule in the United States.[156] The cases teach that "doubts or borderline cases should be resolved in [the accused's] favor."[157] While still a circuit judge, Justice Kennedy wrote that the prior cases "tip the scales in favor" of the accused's sixth amendment right.[158]

Another reason is that the courts have already invoked the right to override the very types of evidentiary rules that prosecutors invoke to block the admission of defense rebuttal testimony in *Trombetta* cases.

*1. Logical Relevance Rules*

As Section I pointed out, in some jurisdictions the courts developed judicial notice and statutory construction theories for excluding defense testimony about the general unreliability of scientific techniques employed by police criminalists. These courts find a conclusive legislative or judicial determination that the technique is valid and rule the defense testimony "irrelevant."

When the defense testimony passes muster under the materiality and reliability prongs, that ruling violates the accused's sixth amendment right. Concededly, government branches such as the legislature and judiciary have wide latitude in defining crimes.[159] A legislature can decide, for example, to criminalize the act of driving with a certain breath alcohol concentration as well as driving with a particular blood alcohol level.[160] However, even if the legislature defines the criminal offense as operating the vehicle with a certain breath alcohol concentration, the breath test itself is not an element of the offense. It is merely evidence which the prosecution uses to prove the accused's commission of the forbidden act.[161]

It violates the accused's sixth amendment right to immunize prosecution evidence from rebuttal by defense testimony which satisfies the materiality and reliability prongs. When Congress passed on the proposed Federal Rules of Evidence, Congress assumed that it would be unconstitutional to instruct a jury that the jury must accept as conclusive a judicially noticed proposition such as the validity of a scientific technique. Congress amended Federal Rule 201(g) to explicitly state that jurors are "not required . . . to accept as conclusive any

156. Imwinkelried, *The Case for Recognizing a New Constitutional Entitlement: The Right to Present Favorable Evidence in Civil Cases*, 1990 UTAH L. REV. 1, 5 (citing Rock v. Arkansas, 483 U.S. 44, 57 (1987) and Chambers v. Mississippi, 410 U.S. 284, 299 (1973)). In *Rock*, the Court held that an accused had the right to testify about facts remembered only after hypnotic induction. At the time of the *Rock* decision, it may have been the prevailing view in the United States that hypnotically enhanced testimony was per se inadmissible. In *Chambers*, the Court ruled that the accused had the right to introduce a third party's declaration against penal interest over a prosecution hearsay objection. In the opinion, the majority conceded that the "materialistic limitation on the declaration-against-interest hearsay exception [restricting the exception to statements against proprietary and pecuniary interest] appears to be accepted by most States in their criminal trial processes." *Chambers*, 410 U.S. at 299.

157. Note, *Hypnosis and the Right to Testify: An Evidentiary and Constitutional Dilemma for Connecticut*, 9 BRIDGEPORT L. REV. 359, 409 (1988).

158. Chipman v. Mercer, 628 F.2d 528, 531 (9th Cir. 1980).

159. *See generally* Allen, *Structuring Jury Decisionmaking in Criminal Cases: A Unified Constitutional Approach to Evidentiary Devices*, 94 HARV. L. REV. 321, 342-48 (1980).

160. *Brayman*, 110 Wash. 2d 183, 751 P.2d 294.

161. State v. Ulrich, 478 N.E.2d 812, 821, 824 (Ohio Ct. App. 1984).

fact judicially noticed."[162] Congress added the amendment because it believed that treating a judicially noticed fact as conclusive in a criminal case would be "contrary to the spirit of the Sixth Amendment. . . ."[163] Several courts have voiced the same belief.[164]

Most importantly, the Supreme Court's 1986 decision in *Crane v. Kentucky*[165] lends support to the belief. In *Crane*, the accused made a pretrial motion to suppress his alleged confession. At the hearing, the accused introduced evidence of the circumstances surrounding the statement. The trial judge denied the motion. At trial, the prosecution introduced the confession. The accused then attempted to introduce some of the same evidence to attack the weight of the confession. The prosecutor objected to the admission of the evidence on relevance grounds, and the trial judge sustained the objection.

On certiorari, the Supreme Court reversed. Citing *Trombetta* at the outset of its opinion, the Court emphasized that the accused has a "fundamental constitutional right to a fair opportunity to present a defense."[166] The Court then cited both *Washington* and *Chambers* for the proposition that the general constitutional right subsumes the more specific right to present favorable evidence.[167] The Court independently reviewed the question of whether the defense evidence in question was relevant to the evaluation of weight to be given the accused's confession.[168] After its *de novo* review of the evidence, the Court concluded that the evidence was logically relevant and that its exclusion amounted to constitutional error.

*Crane* is a significant extension of the *Chambers* line of authority. In cases such as *Chambers* and *Washington*, the excluded defense evidence was logically relevant to the historical merits of the case. In both cases, the evidence tended to show that someone other than the accused was the perpetrator. In *Crane*, however, the excluded evidence had no relevance to the historical merits. It was relevant only to attack the weight of prosecution evidence, the accused's confession. *Crane* thus stands for the proposition that the accused's sixth amendment right attaches to defense testimony which is relevant only to the rebuttal of damning prosecution evidence. Under *Crane*, the right therefore applies to defense expert testimony offered to attack the weight of prosecution scientific evidence. Moreover, under *Crane* the court is obliged to make an independent assessment of the logical relevance of the defense evidence. The *Crane* Court undertook a *de novo* review of the relevance of the evidence;[169] and when the issue arose in other contexts, the Court has exercised the right to

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162. FED. R. EVID. 201(g).
163. HOUSE COMM. ON JUDICIARY, FED. RULES. OF EVID., H.R. REP. NO. 650, 93d Cong., 1st Sess. 6 (1973).
164. *Barcott*, 741 P.2d at 230 ("due process will not allow the results of a chemical test . . . to be conclusively presumed accurate"); *Lowther*, 740 P.2d at 1020 ("'[T]he Legislature may not declare the weight to be given to evidence or what evidence shall be conclusive proof of an issue of fact'").
165. 476 U.S. 683 (1986).
166. *Id.* at 687.
167. *Id.* at 690.
168. *Id.* at 691.
169. *Id.*

independently assess the logical relevance of evidence.[170] Thus, a court cannot shirk that responsibility and routinely defer to an earlier determination — either judicial or legislative — that the evidence in question is irrelevant.

*2. Expert Testimony Rules*

Just as the accused can rely on the sixth amendment right to attack the exclusion of defense evidence as irrelevant, the accused can invoke the right to invalidate the exclusion of the evidence under the expert testimony rules. After *Chambers*, numerous courts invoked the right to mandate the admission of various types of expert opinion testimony. A few courts recognized an accused's right to introduce exculpatory polygraph test results.[171] A larger number of courts relied on the sixth amendment right in holding that an accused had a constitutional right to introduce various forms of psychiatric and psychological testimony.[172]

The Supreme Court's 1987 decision in *Rock v. Arkansas*[173] strengthens the argument for applying the sixth amendment to restrictions on the admissibility of expert testimony. The accused, Vickie Rock, was charged with homicide. Before trial, she had difficulty remembering the details of the shooting. She twice underwent hypnosis to revive her memory. Only after hypnosis did she remember the critical detail that her gun had accidentally misfired. The prosecutor filed a pretrial motion to exclude the accused's hypnotically refreshed testimony. The trial court granted the motion, and the state supreme court affirmed. The state court concluded that hypnotically enhanced testimony is so untrustworthy that it is *per se* inadmissible.[174] *Per se* inadmissibility was apparently the majority view in the United States at the time.[175]

On appeal, the accused challenged the exclusion of her testimony. The Supreme Court sustained her challenge.[176] Justice Blackmun wrote for the majority. He began his analysis by citing *Washington*.[177] Under *Washington*, the accused has a right to call witnesses, including herself.[178] The Justice next conceded that the state has a legitimate interest in protecting the integrity of the fact-finding process by excluding unreliable evidence. He also frankly admitted

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170. In a number of other cases, the Supreme Court exercised the power to independently assess the logical relevance of evidence. EXCULPATORY EVIDENCE, *supra* note 112, § 5-2b, at 118-21. On occasion such as in Tot v. United States, 319 U.S. 463 (1943), the Court disagreed with a legislative determination of relevance.

171. *See, e.g.*, State v. Dorsey, 87 N.M. 323, 532 P.2d 912 (Ct. App.), *aff'd on other grounds*, 88 N.M. 184, 539 P.2d 204 (1975); State v. Sims, 52 Ohio Misc. 31, 369 N.E.2d 24 (1977); P. GIANNELLI & E. IMWINKELRIED, *supra* note 21, at § 8-3(D).

172. *See, e.g.*, Parisie v. Greer, 671 F.2d 1011 (7th Cir. 1982), *vacated*, 705 F.2d 882 (7th Cir. 1983), *cert. denied*, 464 U.S. 918 (1983); Hughes v. Matthews, 576 F.2d 1250 (7th Cir. 1978); Hendershott v. People, 653 P.2d 385 (Colo. 1982), *cert. denied*, 459 U.S. 1225 (1983).

173. 483 U.S. 44.

174. Rock v. State, 288 Ark. 566, 573, 708 S.W.2d 78, 81 (1986), *vacated*, 483 U.S. 44 (1987).

175. Casenote, *The Admissibility of Hypnotically Refreshed Testimony:* Rock v. Arkansas, 30 B.C.L. REV. 573, 594 (1989).

176. *Rock*, 483 U.S. at 55.

177. *Id.* at 52.

178. *Id.*

that "[t]he use of hypnosis in criminal investigations . . . is controversial, and the current medical . . . view of its appropriate use is unsettled."[179] After reviewing the scientific literature, however, he concluded that the prosecution failed to show that "hypnotically enhanced testimony is always so untrustworthy . . . that it should disable a defendant from presenting her version of the events."[180]

Since the Court's decision in *Rock*, the lower courts and commentators have assumed that the accused's sixth amendment right applies to scientific evidence. Some commentators have expressly concluded that *Rock* applies to scientific techniques other than hypnotic memory enhancement.[181] Courts have also cited *Rock* as the basis for admitting novel types of defense expert testimony such as evidence of a portable breathalyzer test.[182]

It is, however, possible to limit *Rock* to its facts. In *Rock*, the evidence the accused attempted to present to the jury was her own lay testimony about the shooting. She did not attempt to introduce any expert testimony about the reliability of the hypnotic enhancement technique. But it would be illiberal to limit *Rock* in this fashion. The primary focus of Justice Blackmun's opinion was the state of the scientific record on the reliability of testimony produced by hypnotic enhancement. His immediate concern may have been the reliability of the testimony produced in court, but in turn the reliability of that testimony depended on the validity of the scientific methodology used to produce the testimony.

It is especially appropriate to apply the accused's sixth amendment right to defense rebuttal testimony. Repeatedly, the courts assert that the primary danger posed by expert testimony is that the lay jurors will overestimate the probative value of the testimony.[183] The California Supreme Court voiced the fear that expert testimony may "cast a spell" over the jury.[184] The same court also stated that a "misleading aura of certainty . . . often envelops a . . . scientific process."[185] The District of Columbia Court of Appeals asserted that jurors often attribute a "mystic infallibility" to scientific evidence.[186] Similarly, the Maryland Court of Appeals wrote that jurors naively overestimate the objectivity and certainty of expert testimony.[187]

The courts' concern about this supposed danger helps explain many of the restrictions on the admissibility of expert testimony. Section I pointed out that

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179. *Id.* at 59.
180. *Id.* at 61.
181. *See, e.g.*, Note, Rock v. Arkansas: *Hypnotically "Refreshed" Testimony or Hypnotically "Manufactured" Testimony?*, 74 CORNELL L. REV. 136 (1988). *See also* Casenote, *supra* note 175, at 594-98 (generally discussing the extension of the accused's constitutional right by the *Rock* Court).
182. Patrick v. State, 295 Ark. 473, 478, 750 S.W.2d 391, 393 (1988).
183. Reed, *Practical Pitfalls in Handling Scientific Evidence*, in SCIENTIFIC AND EXPERT EVIDENCE IN CRIMINAL ADVOCACY 17, 27 (1975).
184. People v. Collins, 68 Cal. 2d 319, 320, 438 P.2d 33, 33, 66 Cal. Rptr. 497, 497 (1968).
185. People v. Kelly, 17 Cal. 3d 24, 32, 549 P.2d 1240, 1245, 130 Cal. Rptr. 144, 146 (1976) (quoting Huntingdon v. Crowley, 64 Cal. 2d 647, 656, 414 P.2d 382, 390, 51 Cal. Rptr. 254, 262 (1966)).
186. United States v. Addison, 498 F.2d 741, 744 (D.C. Cir. 1974).
187. Reed v. State, 283 Md. 374, 385, 391 A.2d 364, 370 (1978).

in some jurisdictions, prosecutors can object to defense testimony on the ground that the defense expert's opinion lacks the requisite degree of certainty. The requirement for a certain degree of certainty in the expert opinion relates to this supposed danger:

> [The courts] fear that the lay jurors will assume that virtually all scientific testimony is infallible. If we work from that premise, it makes sense to limit expert testimony to opinions that merit the weight we think that jurors will accord the opinions. If jurors are likely to give scientific evidence certain or conclusive weight, it is arguable that only scientific opinions of that degree of certitude should be admitted.[188]

Similarly, the limitations on the use of hypothetical questions are partially attributable to this fear. Many, if not most, courts assume that jurors tend to uncritically credit the ultimate opinion stated by an expert;[189] awed by the witness' stature as an expert, the jurors may be inclined to accept the ultimate opinion merely because *ipse dixit*. Suppose that there is no evidence of the truth of a particular assumption underlying the expert's opinion. The courts suspect that even if an expert acknowledges that his opinion rests on a purely hypothetically assumed fact, the jury might accept the opinion. The net result would be that the jury would overvalue the opinion. Like the courts' insistence on opinions couched as probabilities or certainties, the requirement for proof of the assumed facts represents an effort to ensure that the expert opinions admitted in court possess the great weight which jurors presumably ascribe to them. Before the court will permit an expert to opine based on an assumed fact, there must be some evidence that the assumption is correct.

Thus, the overarching concern inspiring the expert testimony rules is preventing the jury from overestimating the probative value of expert testimony. It is *Catch 22* reasoning to invoke the rules to exclude defense rebuttal testimony. The accused's rebuttal testimony does not present that risk. The risk is most acute when the prosecution introduces scientific evidence and the defense is denied an opportunity to offer expert testimony to rebut the scientific evidence. If unrebutted, prosecution scientific evidence presents a grave risk that the jury will overvalue the evidence. The exclusion of the defense rebuttal testimony compounds the risk. But, the admission of the testimony will counteract the risk. In sum, when defense rebuttal testimony satisfies the materiality and reliability prongs for triggering the accused's sixth amendment right, it will usually be wrong-minded to mechanically invoke the expert testimony rules to bar the defense testimony.

*3. The Legal Relevance Doctrine Under Rule 403*

Like the logical relevance and expert testimony rules, the legal relevance doctrine has succumbed to attack under the accused's sixth amendment right.[190] The best example is the Supreme Court's 1988 decision in *Olden v.*

188. MATERIALS FOR THE STUDY OF EVIDENCE, *supra* note 68, at 444.
189. Imwinkelried, *The Standard for Admitting Scientific Evidence: A Critique from the Perspective of Juror Psychology*, 28 VILL. L. REV. 554, 562-63 (1983).
190. *See generally* EXCULPATORY EVIDENCE, *supra* note 112, at ch. 7.

*Kentucky*.[191] Olden, a black man, was charged with raping a Ms. Matthews, a Caucasian woman. At trial, the accused offered evidence that Ms. Matthews was having an affair with another black man, Mr. Russell. The accused attempted to introduce the evidence to bolster his theory that Ms. Matthews had consented to intercourse with him, later realized that Russell would be jealous, and finally "concocted the rape story to protect her relationship with Russell... ."[192]

The prosecutor objected to the defense evidence on legal relevance grounds. The trial judge sustained the objection. The trial judge stated that the evidence had extreme potential for prejudice in the technical sense under the legal relevance doctrine. If the evidence were admitted, it might generate "extreme prejudice against Matthews"[193] in the jury's mind and tempt them to decide the case on an improper basis.[194] A bigoted juror might improperly discount Ms. Matthews' credibility simply because she was involved in an interracial affair. The Court acknowledged that in applying the legal relevance doctrine, a trial judge has a measure of discretion. Nevertheless, the Court held that the exclusion of the defense evidence was unconstitutional. The Court emphasized that Matthews' testimony was "central, indeed crucial, to the prosecution's case."[195] The Court struck the balance in the accused's favor because the evidence in question had great potential to demonstrate the falsity of Matthews' testimony.[196]

*Olden* makes it far more difficult for trial judges to justify the exclusion of defense rebuttal evidence under the rubric of legal relevance. In *Olden*, the trial judge's fear of a bigoted reaction by jurors was plausible. If that reaction had materialized, a wrongful acquittal could have resulted. Thus, the prosecution had a significant stake which might have countervailed over the probative value of the excluded defense evidence. The *Olden* Court's decision to mandate the admission of the evidence reflects the value which even the members of the Rehnquist Court attach to the accused's "fundamental"[197] right to present a defense. As one court remarked, "[t]he states' interests in the evidentiary rules at issue in *Chambers* and *Washington* were surely more significant than . . . purely procedural interest[s]"[198] such as the consumption of time entailed in the presentation of rebuttal testimony by defense experts. The countervailing probative dangers listed in Rule 403 are legitimate considerations; but standing alone, they will rarely override the accused's interest in presenting rebuttal testimony that satisfies the materiality and reliability prongs.

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191. 488 U.S. 227 (1988).
192. *Id.* at 230.
193. *Id* at 231. *See also* Wealot v. Armontrout, 740 F. Supp. 1436 (W.D. Mo. 1990).
194. The advisory committee to Federal Rule 403 states that "'[u]nfair prejudice' within [this] context means an undue tendency to suggest a decision on an improper basis. . . ." FED. R. EVID. 403 advisory committee's note.
195. *Olden*, 488 U.S. at 233.
196. *Id.* at 232.
197. *Chambers*, 410 U.S. at 302.
198. United States *ex rel.* Veal v. Wolff, 529 F. Supp. 713, 722 (N.D. Ill. 1981), *rev'd on other grounds*, 693 F.2d 642 (7th Cir. 1982).

## III. CONCLUSION

*California v. Trombetta*[199] is one of the Supreme Court's most famous criminal law decisions in the past decade. Much has been written about the decision by commentators[200] and other courts.[201] In these analyses, the commentators and courts have conceived of *Trombetta* as exclusively a discovery decision. The evidentiary implications of the decision, however, have been almost completely ignored. The purpose of this article has been to highlight those implications. In *Trombetta*, the Court characterized the lost defense evidence as speculative. The Court, however, failed to foresee that prosecutors would seize upon the speculative character of defense rebuttal testimony as a basis for objecting to the introduction of the testimony the Court assumed to be routinely admissible.

There are undoubtedly those who would argue that in *Trombetta* fact situations, the fairest solution is to exclude the prosecution's scientific evidence whenever police conduct prevents an independent retest of the physical evidence by defense experts. However, our hypothesis is that the police acted in good faith, the initial test result was inculpatory, and the exculpatory value of the lost defense evidence is highly conjectural. Under these facts, the *Trombetta* Court is probably correct in concluding that the exclusion of highly relevant scientific evidence is too Draconian.

The best analogy may be the dead man's or survivors' evidence acts. The early English view was that parties were incompetent to testify.[202] At first, the American courts adhered to that view. In the middle of the 19th century, however, there were sweeping legislative reforms in most states.[203] The legislature generally abolished the incompetency. However, "a compromise was forced upon the reformers"[204] — the dead man's acts. The acts provided that if one party to a transaction such as the formation of a contract was dead at the time of trial, the other party was incompetent to testify against the decedent's estate about the transaction. The argument ran that since death had silenced one party, in fairness the law should silence the other.[205]

In time, most students of the law of evidence came to share Bentham's assessment that the dead man's acts were "blind and brainless."[206] From a systemic perspective, Bentham was certainly correct. The death of one party deprived the trier of fact of one of the most important sources of information

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199. 467 U.S. 479; Annotation, *Prosecution's Failure to Preserve Potentially Exculpatory Evidence as Violating Criminal Defendant's Due Process Rights Under Federal Constitution—Supreme Court Cases*, 102 L. Ed.2d 1041 (1990).

200. *E.g.*, Reidinger, *Good Faith, Bad Evidence*, 75 A.B.A. J. 48 (Feb. 1989); Note, *supra* note 10.

201. *E.g.*, State v. Matafeo, 71 Haw. 183, 787 P.2d 671 (1990); People v. Sheppard, 701 P.2d 49 (Colo. 1985); State v. Leroux, 18 Conn. App. 223, 557 A.2d 1271 (1989); Annotation, *Consumption or Destruction of Physical Evidence Due to Testing or Analysis By Prosecution's Expert as Warranting Suppression of Evidence or Dismissal of Case Against Accused in State Court*, 40 A.L.R.4th 594 (1985).

202. C. MCCORMICK, *supra* note 49, § 65, at 159.

203. *Id.*

204. *Id.*

205. *Id.*

206. *Id.* § 65, at 160.

about the transaction. The dead man's acts aggravated the problem by preventing the jury from hearing from the other key source of information, the surviving party. It would, however, be a mistake to entertain a naive faith in the "curative" power of additional evidence:[207] Presenting a trier of fact with more and more marginally relevant information does not necessarily improve the caliber of the final decision. In some cases, deluging the trier with additional information may lower the quality of the ultimate factual findings. But denying the trier the benefit of two of the potentially most helpful sources of information will rarely advance the search for truth. On balance, the dead man's acts were bad policy because they deprived the trier of fact of such valuable information. Similarly, it would be unwise to exclude evidence of a highly relevant scientific analysis of physical evidence, conducted by a police laboratory, to compensate for the defense's inability to retest physical evidence which the police innocently disposed of or contaminated.

The optimum solution is the outcome proposed by this article: maintaining a fair, adversarial balance in *Trombetta* cases by extending the accused's sixth amendment right to the defense rebuttal evidence. When the rebuttal evidence passes muster under the materiality and reliability prongs, the accused has a crucial interest in submitting that evidence to the trier of fact. After *Crane v. Kentucky*,[208] it is clear that the accused's right attaches to testimony which is logically relevant only to rebutting incriminating prosecution evidence. In striking the balance under the sixth amendment test which the Court has announced, the judge admittedly must consider the competing considerations underlying the evidentiary rules cited in the prosecution's objection. However, those considerations should rarely be potent enough to override the accused's stake. It is particularly inapt to invoke the expert testimony rules to bar the admission of the defense evidence. Many of those rules are inspired by the courts' fear of the risk that the trier of fact will overvalue scientific testimony. That risk is greatest precisely when the judge admits the prosecution evidence but excludes the defense expert's rebuttal. When the prosecutor objects to material, reliable defense testimony, the prosecutor is seeking "the perpetuation of an unfair advantage."[209] In our adversary system of criminal justice,[210] that type of advantage is both intolerable and unconstitutional.

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207. Graham, *"There'll Always Be An England:" The Instrumental Ideology of Evidence*, 85 MICH. L. REV. 1204, 1211 (1987).
208. 476 U.S. 683.
209. *Lepine*, 215 Cal. App. 3d at 101, 263 Cal. Rptr. at 548.
210. S. LANDSMAN, *supra* note 19.