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The Equality Principle Revisited: The Relationship of *Daubert v. Merrell Dow Pharmaceuticals* to *Ake v. Oklahoma*

Lee Richard Goebes

1. Introduction

At first blush, the United States Supreme Court cases of *Daubert v. Merrell Dow Pharmaceuticals*¹ and *Ake v. Oklahoma*² would not seem related.³ It has been suggested, however, that the more recently developed *Daubert* standard should affect defense requests for an *Ake* expert.⁴ Why should this be so?

In *Ake*, the Court, relying on the Fourteenth Amendment, reversed an Oklahoma trial judge's refusal to provide—at state expense—a mental health expert requested by an indigent capital defendant who wished to pursue an insanity defense.⁵ In *Daubert*, the Court rejected lower courts' practice of excluding

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³. *Daubert v. Merrell Dow Pharmaceuticals*, Inc., 509 U.S. 579, 597 (1993) (holding that "[g]eneral acceptance" is not a necessary precondition to the admissibility of scientific evidence under the Federal Rules of Evidence, but the Rules of Evidence . . . do assign to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand"); *Ake v. Oklahoma*, 470 U.S. 68, 74 (1985) (holding "that when a defendant has made a preliminary showing that his sanity at the time of the offense is likely to be a significant factor at trial, the Constitution requires that a State provide access to a psychiatrist's assistance on this issue if the defendant cannot otherwise afford one").
⁵. *Ake*, 470 U.S. at 74; see U.S. CONST. amend. XIV, § 1. The rather narrow holding has been extended beyond the capital realm, beyond access merely to psychiatric experts, and, perhaps most importantly to this Article, beyond testifying witnesses. See e.g., notes 111-141 and accompanying text (discussing extensions of *Ake*). See generally Carlton Bailey, *Ake v. Oklahoma* and *an
ing scientific evidence “unless the technique is generally accepted as reliable in the relevant scientific community.” After Daubert, a trial judge faced with proffered scientific testimony must assess “whether the reasoning or methodology underlying the testimony is scientifically valid and . . . whether that reasoning or methodology properly can be applied to the facts in issue.”

This Article will explore the relationship between these cases. The Article’s basic premise is this: if the prosecution is seeking to admit expert testimony pursuant to the standard outlined in Daubert, the defendant will often be entitled to an expert under Ake. Daubert assumes that the party opposing the admission of expert testimony is fully able to present its objections and to subject the proffered expert to the full crucible of adversarial testing. The Daubert standard of admissibility requires full and fair adversarial testing of proffered expert evidence; at bottom, because Daubert realizes that judges lack training in science and the scientific method, Daubert assumes that the party offering the expert and the party objecting to the expert are well educated on the subject matter at issue and able to plead properly and present vigorously their cases for and against admission. Furthermore, the Daubert opinion recognizes that under its standard, trial courts occasionally will admit some “shaky” or erroneous science. The Daubert holding, therefore, relies on the adversarial process and the jury system to sort out the bad science from the good. Criminal defense lawyers, however, are usually not scientists; defense lawyers need expert consultation to prepare properly their cross-examinations and challenges to the prosecution’s experts. The reality, recognized by Ake, is that many criminal defendants are unable to secure the expert consultation and assistance that the Daubert standard for initial admission— as well as Daubert’s increased reliance on juries to reject erroneous science— requires.

The jurisprudential line upon which the Court founded Ake affects Ake’s relationship with Daubert. Thus, Part II of this Article will trace the cases leading to Ake. Ake’s jurisprudential ancestors recognize that there is an “equality principle” present in the Fourteenth Amendment to the United States Constitu-

6. Daubert, 509 U.S. at 584 (internal citations and quotations omitted).
7. Id. at 592-93. Under Daubert, the trial judge must understand the rationale underlying the proffered testimony and must be able to determine whether the testimony was reached through a proper application of the scientific method. The Daubert Court referred to the trial judge’s role as that of “gatekeeper.” Id. at 597. Lower courts, as well as legal commentators, latched onto this “gatekeeping” language; thus, the trial court’s role under Daubert is consistently described as that of “gatekeeper.” See, e.g., Magistrini v. One Hour Martinizing Dry Cleaning, 180 F. Supp. 2d 584, 596 n.10 (D. N.J. 2002) (referring to trial judge’s role under Daubert as that of “gatekeeper”); Miles J. Vigilante, Note, Screening Expert Testimony After Kumho Tire Co. v. Carmichael, 8 J.L. & POL’Y 543, 546 (2000) (describing trial judge’s role under Daubert as that of “gatekeeper”).
8. Daubert, 509 U.S. at 595-96 (discussing “shaky” testimony that is nonetheless admissible under Daubert standard).
tion; this equality principle requires the government to take affirmative steps to alleviate the effects of poverty on an indigent defendant’s ability to mount fully a defense. Part III will examine closely the Ake opinion itself, and will address the extension and application of Ake in the state and federal courts. The Ake expert, although commonly (and correctly) viewed as a trial sword defendants can utilize to formulate an aggressive defense, is also properly viewed as providing a defendant with a trial shield. This latter use is relevant to Ake’s relationship with Daubert. This Part also will examine briefly the codification of Ake by the various legislatures.

Part IV will address the standard for the admission of expert testimony replaced by Daubert. It next will examine the Daubert opinion itself, its progeny, and the way in which Daubert altered the admission of expert testimony. Although the Daubert Court based its decision on its interpretation of the Federal Rules of Evidence, many state courts have adopted the Daubert standard for both criminal and civil cases. Part V will question whether the Daubert standard, developed in the civil context, should apply wholesale in the criminal arena.

Because the Daubert standard allows judges to admit more expert testimony, it expressly requires a full and fair adversarial pre-admission testing of proffered expert evidence. Part VI, therefore, will address Daubert’s implications to the process of evidentiary voir dire. In addition, the Daubert opinion recognizes that some erroneous, shaky, and overstated expert testimony will be admitted; the jury, therefore, is expected to sort out the erroneous evidence and come to a “correct” decision. Thus, Part VI also will address Daubert’s failure to screen out erroneous scientific evidence and the increased importance of a defense lawyer having expert assistance in her preparation for the cross-examination of the prosecution’s experts. Part VI will also examine the importance of limiting the impact of expert testimony that—although based on “good science”—needs to be placed in perspective.

Simply put, if the Daubert standard and process of admissibility is to be anything more than a perfunctory exercise, the indigent defendant must have the ability to subject the proffered expert to adversarial testing. Moreover, because the Daubert opinion relies on juries to ignore “bad science,” the defense attorney must have the “basic tools” to rebut the prosecution’s experts.9 A fair reading of Ake and its progeny provides the indigent defendant with the expert assistance assumed by the Daubert Court.

9. The “basic tools” language originated in the United States Supreme Court’s opinion in Britt v. North Carolina, 404 U.S. 226, 227 (1971), and was expanded on by the Ake Court. See Ake, 470 U.S. at 77 (citing Britt, 404 U.S. at 227).
II. The Road to Ake: The Griffin/Douglas Equality Principle

“There can be no equal justice where the kind of trial a man gets depends on the amount of money he has.”

“In either case the evil is the same: discrimination against the indigent.”

A. Griffin v. Illinois

After being convicted for armed robbery in Illinois state court, Judson Griffin ("Griffin") filed a motion in the trial court asking that the state provide him with a copy of the trial transcript at no cost; this motion alleged that Griffin was indigent and that, under Illinois law, a defendant appealing a criminal conviction must include a copy of the trial transcript to obtain appellate review.

Although Illinois law provided no-cost trial transcripts to indigent defendants convicted of capital offenses, in "all other criminal cases defendants needing a transcript, whether indigent or not, must themselves buy it." Griffin argued that Illinois's failure to provide him with the needed transcript violated both the Due Process and Equal Protection Clauses of the Fourteenth Amendment.

The trial court denied this motion without a hearing.

Griffin appealed the ruling of the trial court to the Supreme Court of Illinois. He again asserted that the only impediment to a full appellate review was his lack of funds to purchase a transcript and that "refusal to afford full appellate review solely because of poverty was a denial of due process and equal protection." The Supreme Court of Illinois rejected Griffin’s appeal without a hearing.

The United States Supreme Court, however, granted Griffin’s petition for a writ of certiorari on the question of whether Illinois’s refusal to

13. Id. at 14.
14. Id. at 14-15; see also U.S. Const. amend. XIV, § 1 ("[N]or shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws").
15. Griffin, 351 U.S. at 15. At no point, in either the state or federal proceedings, did the State of Illinois dispute Griffin's indigency or his inability to purchase the required transcripts.
16. Id.
17. Id.
18. Id.
provide a trial transcript for a noncapital indigent defendant, when such transcript is necessary for appeal, violates due process or equal protection.  

Illinois conceded that Griffin was indigent and that he needed a transcript in order to prosecute his appeal; the State nevertheless argued that nothing in the Due Process or Equal Protection Clauses guaranteed to Griffin a transcript at the State’s expense.  

The Court, however, rejected the State’s contentions. Citing such diverse documents as Leviticus and the Magna Carta, Justice Black’s opinion for the Court noted that “[p]roviding equal justice for poor and rich . . . is an age old problem.” According to Justice Black, in the American system of justice, this concern for equal justice is embodied in the coordinate concepts of due process and equal protection. Due process and equal protection “emphasize the central aim of our entire judicial system— all people charged with crime must, so far as the law is concerned, stand on an equality before the bar of justice in every American court.” By refusing to provide Griffin with a transcript, Illinois discriminated against him for being poor; poverty, however, bears “no rational relationship to a defendant’s guilt or innocence.” This denial of appellate access due to poverty meant that Illinois deprived some indigent defendants of their liberty through unjust convictions that the appellate courts would have set aside. Because indigent defendants received less procedural due process because of their poverty, the Court held that this outcome violated the Fourteenth Amendment:

[Denying an indigent convict access to appellate review] is a misfit in a country dedicated to affording equal justice to all and special privileges to none in the administration of its criminal law. There can be no equal justice where the kind of trial a man gets depends on the amount of money he has. Destitute defendants must be afforded as

21. Id.
22. Id. at 17.
23. Id. (internal quotations and citations omitted).
24. Id. at 17-18. The Griffin Court came close to recognizing poverty as a suspect classification for equal protection purposes: “In criminal trials a State can no more discriminate based on account of poverty than on account of religion, race, or color.” Id. at 17. The Warren-era Court flirted with the idea of making wealth—or the lack thereof—a suspect classification for equal protection purposes. See Harper v. Va. Bd. of Elections, 383 U.S. 663, 668 (1966) (“Lines drawn on the basis of wealth or property, like those of race . . . are traditionally disfavored.”) (internal citations omitted). The Burger-era Court, however, rejected including “wealth” in the Equal Protection Clause’s list of suspect classifications. See San Antonio Indep. Sch. Dist. v. Rodriguez, 411 U.S. 1, 28-29 (1973) (rejecting notion that wealth is suspect class for purposes of invoking strict scrutiny for equal protection analysis).
adequate appellate review as defendants who have money enough to buy
transcripts.  

The Supreme Court, therefore, vacated the decision of the Supreme Court of Illinois. The Court, a full seven years prior to finding in the Sixth and Fourteenth Amendments a constitutional right to counsel at state expense, had taken a step towards outlining the equality principle.

B. Douglas v. California

A jury convicted William Douglas ("Douglas") of a thirteen-count felony information in a California state trial court. The California District Court of Appeal affirmed this conviction on mandatory appeal. Douglas then petitioned the Supreme Court of California for discretionary review of his conviction; the California court denied this petition without a hearing.

Although it had established a public defender system, the California legislature did not automatically provide counsel at state expense for an indigent defendant on appeal. Pursuant, however, to the California rules of criminal procedure, a California court of appeal had the discretion to appoint counsel for an indigent defendant if it determined that the appellant's case was particularly complicated and that the assignment of counsel would have been of special advantage to the particular appellant. Douglas had requested the appointment

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26. Id. (footnote omitted). The Court noted that the Constitution does not require the State of Illinois "to provide appellate courts or a right to appellate review at all." Id. at 18. Because, however, Illinois had made appellate review available to those convicts who could afford transcripts, appellate review had "become an integral part of the Illinois trial system for finally adjudicating the guilt or the innocence of a defendant." Id. As an integral part of the trial system, appellate review now was subject to the constraints of due process and equal protection; Illinois could not, consistent with the Fourteenth Amendment, exclude indigent convicts from having access to appellate review. Id.

27. Id. at 20. The Court, however, did not hold that Illinois was required to purchase a transcript in every case where the defendant could not afford one. Instead, the Court left it to the Supreme Court of Illinois to "find other means of affording adequate and effective appellate review to indigent defendants." Id. The Court, by way of example, suggested that the Illinois court could utilize "bystanders' bills of exception or other methods of reporting trial proceedings." Id. The Griffin Court's bow to federalism and the state courts to implement the specifics of its holding would repeat itself in the Ake decision; in the Ake decision, the bow to federalism led to confusion in the lower courts. See infra note 110.

28. See Gideon v. Wainwright, 372 U.S. 335, 345 (1963) (holding that Sixth and Fourteenth Amendments require states to provide counsel at state expense to indigent defendants charged with felony offenses).

29. Douglas, 372 U.S. at 353. At this jury trial, both Douglas and a co-defendant were represented by a single public defender. Id. at 353-54.

30. Id. at 354.

31. Id.

32. Id. at 354-55.

33. Id. at 355 (citing California v. Hyde, 331 P.2d 42, 43 (Cal. 1958) (en banc)). The test employed by the California courts to determine whether to appoint appellate counsel was quite
of counsel for assistance on his appeals. The California appellate courts, however, after conducting an independent investigation of the trial record, determined that the appointment of counsel would have been of little or no value to Douglas. Thus, Douglas was forced to prepare his mandatory appeal and his petition for discretionary appeal without the guiding hand of counsel.

Douglas successfully petitioned the United States Supreme Court for review of the Supreme Court of California’s refusal to appoint counsel. Returning to the due process / equal protection logic and language it had employed in Griffin, the Court, per Justice Douglas, vacated the decision of the lower court. The Court noted that, under the California procedure, a rich appellant “enjoys the benefit of counsel’s examination into the record, research of the law, and marshalling of arguments on his behalf” regardless of the appellate court’s initial determination regarding the appellant’s case. The indigent defendant, however, enjoys no such benefits:

[The appellate court is forced to prejudge the merits [of the indigent’s appeal] before it can even determine whether counsel should be provided. At this stage in the proceedings only the barren record speaks for the indigent, and, unless the printed pages show that an injustice has been committed, he is forced to go without a champion on appeal. Any real chance he may have had of showing that his appeal has hidden merit is deprived him when the court decides on an ex parte examination of the record that the assistance of counsel is not required.

The Court held that such a system violates the Fourteenth Amendment. Similar to its holding in Griffin, the Court’s holding in Douglas is grounded in both due process and equal protection and also in the area in which these two concepts overlap. The due process concepts of fundamental fairness and a right to be heard, as well as the equal protection doctrine’s mandate that all individuals

similar to the standard the Supreme Court had outlined in 1942 for deciding whether noncapital defendants were entitled to state-funded defense counsel at the trial level. See Betts v. Brady, 316 U.S. 455, 473 (1942) (holding that due process does not guarantee every felony defendant appointment of counsel at state expense; instead, courts must conduct case-by-case inquiry to determine whether particular facts and circumstances of specific case and defendant require appointment of counsel). The Court, on the same day it rendered its decision in Douglas, overturned Betts with its seminal decision in Gideon v. Wainwright. See Gideon, 372 U.S. at 345 (overturning Betts; holding that Sixth and Fourteenth Amendments require that state provide indigent felony defendants with trial counsel at state expense).

37. Id.
38. Id. at 356.
39. Id. at 358.
stand equal before the law, were offended by a system where “the rich man can require the court to listen to the arguments of counsel before deciding on the merits, but a poor man cannot.” Recognizing the overlap between equal protection and due process, the Court stated that there “is lacking that equality demanded by the Fourteenth Amendment where the rich man, who appeals as of right, enjoys the benefit of counsel’s examination into the record, research of the law, and marshalling of arguments on his behalf, while the indigent . . . is forced to shift for himself.” The Douglas Court recognized that the Fourteenth Amendment’s Due Process and Equal Protection Clauses combine together to form an “equality principle”—a principle that demands that an indigent criminal defendant’s right to due process and an opportunity to be heard not merely become a “right to a meaningless ritual, while the rich man has [the right to] a meaningful appeal.” The Court, therefore, held that a criminal defendant has the right to counsel at state expense for his initial appeal of right.

Moreover, the Court in Douglas seemed to endorse fully the equality principle at which it earlier had hinted in Griffin. Griffin’s poverty absolutely barred his access to appellate review. Conversely, the California courts’ rejection of Douglas’s request for counsel did not bar his appeal; rather, it just put him at a disadvantage relative to wealthier convicts. Thus, the Court in Douglas read the Fourteenth Amendment to mandate that states make some effort to minimize the disparity of resources facing indigent criminal defendants whose poverty merely had limited their presentation of claims and defenses. Although later cases would limit this equality principle, the notion that the Fourteenth Amendment requires a prescriptive equality would return in Ake.

C. The Equality Principle: The (not quite) Equal Guarantee

Even as the Court was announcing the equality principle, it was limiting its scope: “Absolute equality is not required; lines can be and are drawn and we often sustain them.” In his dissents in both Griffin and Douglas, Justice Harlan worried about the implications of a rule that seemed to require states to take affirmative steps to alleviate the effects of financial disparities between rich and poor defendants. Why, questioned Justice Harlan, should the state be required to remedy the effects of a poverty it had done nothing to cause? Justice Harlan recognized that the equality principle the Court announced in Griffin and Douglas

40. Id. at 357.
41. Id. at 357-58 (emphasis added).
42. Douglas, 372 U.S. at 358.
43. Id. at 357-58. The Court, however, limited its holding to mandatory initial appeals of right and refused to decide whether its holding would require states to provide state-funded counsel to an indigent defendant seeking discretionary review of her conviction. Id. at 356.
44. Id. at 357.
45. See id. at 362-63 (Harlan, J., dissenting); Griffin, 351 U.S. at 38-39 (Harlan, J., dissenting).
46. See Douglas, 372 U.S. at 362-63 (Harlan, J., dissenting).
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could not mean that the Constitution places an “affirmative duty . . . to place the poor on the same level as those who can afford the best legal talent available.”

Simply put, the equality principle must contain some limits.

In 1974, Fred Ross (“Ross”)—arguing that the Fourteenth Amendment mandates appointment of counsel at state expense for discretionary appeals from criminal convictions—discovered at least one limit to the equality principle. The United States Supreme Court, in Ross v. Moffitt, stated that neither the Equal Protection Clause, nor the Due Process Clause, of the Fourteenth Amendment required the appointment of state-funded defense counsel for an indigent defendant prosecuting a discretionary appeal. In rejecting Ross’s claim, the Court distinguished its earlier decision in Douglas by noting that Douglas never had counsel to review the record of his trial. The State of North Carolina had, however, appointed counsel for Ross’s mandatory appeal. Thus, unlike Douglas, Ross had already been provided with the guiding hand of counsel. If, however, one takes the equality principle literally, this distinction is unpersuasive. The wealthy appellant has the further guiding hand of counsel on discretionary appeal but the indigent defendant does not.

Moreover, the Ross Court attempted to untangle the Fourteenth Amendment provisions conflated by the Griffin and Douglas cases: due process “emphasizes fairness between the State and the individual dealing with the State, regardless of how other individuals in the same situation may be treated.” Equal protection, however, “emphasizes disparity in treatment by a State between

47. Id. at 363 (Harlan, J., dissenting).

48. Professor Scott Howe argues that the “equality principle” is too open-ended to serve as a constitutional norm or unifying theory: “equality” always requires an external substantive standard for judging what is similar or dissimilar treatment. See Scott W. Howe, The Troubling Influence of Equality in Constitutional Criminal Procedure: From Brown to Miranda, Furman and Beyond, 54 VAND. L. REV. 359, 379-92 (2001). Professor David Harris similarly argues that the equality principle contains no logical limit and, therefore, is ultimately unworkable. Professor Harris asserts that the Confrontation and Compulsory Process Clauses of the Sixth Amendment are the proper mechanisms to provide the indigent defendant with the resources needed to defend herself in our adversarial system of justice. See David A. Harris, The Constitution and Truth Seeking: A New Theory on Expert Services for Indigent Defendants, 83 J. CRIM. L. & CRIMINOLOGY 469 (1992) [hereinafter Harris, Truth Seeking]. Although Professor Harris’s proposition is intellectually appealing and does not suffer from the line-drawing problems inherent in the equality principle or the tepidness of the Ake doctrine, there is no Sixth Amendment precedent to support it. Because it is unlikely that the Court will provide such precedent in the near future, this Article relies on existing lines of jurisprudence, i.e., the Ake doctrine and the equality principle.


50. Ross v. Moffitt, 417 U.S. 600, 615 (1974) (holding that Fourteenth Amendment does not require appointment of counsel at state expense either for petition for discretionary review by the Supreme Court of North Carolina or for petition for writ of certiorari to United States Supreme Court).

51. Id. at 608-11.

52. Id. at 609.
classes of individuals whose situations are arguably indistinguishable."53 Thus, the *Ross* Court refused to note an overlap between due process and equal protection and retreated from the broad equality notions announced in the earlier opinions. After *Ross*, *Griffin* merely stands for the proposition that indigent defendants must have "an adequate opportunity to present their claims fairly within the adversary system," while *Douglas* merely stands for the proposition that an indigent's appeal cannot become "a meaningless ritual."54 Thus, while the criminal defendant has no right to have her trial or appeal equal that of her wealthier counterpart, she must have "meaningful" access to justice. But, the Fourteenth Amendment does not require that this access be as "meaningful" as that of a wealthy defendant.

Although the *Ross* majority seemed content to assign the equality principle to the jurisprudential wastebasket, not all on the Court were willing to bury the rationale developed in the *Griffin/Douglas* line of cases. Writing in dissent, Justice Douglas noted that the Court had grounded *Douglas* in the twin notions of "fairness and equality."55 He saw no reason to jettison the equality principle's place in criminal jurisprudence.56 Eleven years later, Justice Marshall, who had joined Douglas's dissent in *Ross*, would have the opportunity to breathe new life into the equality principle.57

**III. Ake v. Oklahoma: The Decision Itself, its Progeny, and its Codification**

"We recognized long ago that mere access to the courthouse doors does not by itself assure a proper functioning of the adversary process."58

**A. Ake v. Oklahoma**

The State of Oklahoma charged Glen Burton Ake ("Ake") with first-degree murder arising out of his participation in a double homicide.59 Due to the strange behavior Ake displayed during his arraignment and other pretrial hearings, the trial judge sua sponte ordered him to be examined by a psychiatrist.60 The psychiatrist recommended that the court commit Ake to a state hospital for an evaluation of Ake's ability to stand trial; subsequently, the state hospital

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53. *Id.* The *Ross* Court also stated—somewhat disingenuously—that the "precise rationale for the *Griffin* and *Douglas* lines of cases has never been explicitly stated, some support being derived from the Equal Protection Clause of the Fourteenth Amendment, and some from the Due Process Clause of that Amendment." *Id.* at 608-09 (footnote omitted).
54. *Id.* at 612 (citing *Douglas* and *Griffin*).
55. *Id.* at 621 (*Douglas*, J., dissenting).
57. *See Ake*, 470 U.S. at 74.
58. *Id.* at 77.
59. *Id.* at 70-71 (outlining facts of case).
60. *Id.* at 71.
determined that Ake was unfit to stand trial.\textsuperscript{61} Several months later, the chief forensic psychiatrist at the hospital informed the trial court "that Ake had become competent to stand trial."\textsuperscript{62} The judge accepted this opinion and Oklahoma resumed proceedings against Ake.\textsuperscript{63}

At a pretrial conference, Ake's attorney informed the court that he would present an insanity defense.\textsuperscript{64} Although Ake spent nearly three months in the hospital, the mental health professionals at the hospital made no inquiry into Ake's sanity at the time of the offense.\textsuperscript{65} Moreover, because Ake was indigent, he could not afford a mental health professional to conduct a retrospective inquiry into his sanity at the time of the murders.\textsuperscript{66} Ake's attorney, therefore, argued that the Fourteenth Amendment required that the court appoint a psychiatrist at state expense.\textsuperscript{67} The trial judge, pointing to the United States Supreme Court's decision in \textit{United States ex rel. Smith v. Baldi},\textsuperscript{68} rejected this argument and Ake went to trial without an expert having ever conducted an inquiry into his sanity at the time of the homicides.\textsuperscript{69}

Although the various mental health professionals who had examined Ake during his pretrial hospitalization testified at the trial, "none testified about his mental state at the time of the offense because none had examined him on that point."\textsuperscript{70} Thus, neither Ake nor the State were able to present any evidence or expert testimony on Ake's sanity at the time of the murders.\textsuperscript{71} The trial court instructed the jury that "Ake was to be presumed sane at the time of the crime unless he presented evidence sufficient to raise a reasonable doubt about his sanity" at the time of the offense.\textsuperscript{72}

Although Ake's lawyer argued insanity in his opening and closing arguments, the "jury rejected Ake's insanity defense and returned a verdict of guilty

\begin{enumerate}
\item \textit{Id}; see also \textit{Dusky v. United States}, 362 U.S. 402, 402 (1960) (per curiam) (outlining standard for competency to stand trial).
\item \textit{Ake}, 470 U.S. at 71.
\item \textit{Id} at 71-72.
\item \textit{Id} at 72. An insanity defense seemed to be Ake's only viable option; there was overwhelming physical and circumstantial evidence of his guilt. \textit{Id} at 88 (Rehnquist, J., dissenting). In addition, Ake had provided police with a forty-four page written confession. \textit{Id} (Rehnquist, J., dissenting).
\item \textit{Id} at 72.
\item \textit{Id}.
\item \textit{Id}.
\item 344 U.S. 561 (1953).
\item \textit{Ake}, 470 U.S. at 72; see \textit{United States ex rel. Smith v. Baldi}, 344 U.S. 561, 568 (1953) (stating that government has no duty to provide indigent defendant expert assistance at government's expense).
\item \textit{Id} at 72.
\item \textit{Id}.
\item \textit{Id} at 73.
\end{enumerate}
on all counts.”

At the sentencing proceeding, Oklahoma argued that Ake's crimes warranted a sentence of death. The state hospital doctors, who had not made any investigation into Ake's mental condition at the time of the murders, testified that "Ake was dangerous to society" and would likely commit further violent crimes. The prosecution, therefore, was able to present unrebutted expert testimony that Ake constituted a future danger. The jury agreed with the assessment of the state doctors and sentenced Ake to death.

Ake, reiterating his argument that the Fourteenth Amendment entitled him to expert assistance, appealed his conviction and sentencing. The Oklahoma Court of Criminal Appeals affirmed Ake's death sentencing and noted, "We have held numerous times that, the unique nature of capital cases notwithstanding, the State does not have the responsibility of providing [expert assistance] to indigents charged with capital crimes." The United States Supreme Court granted Ake's petition for a writ of certiorari.

In a decision written by Justice Marshall, the Supreme Court reversed the decision of the Oklahoma court. The Court held that:

When a defendant has made a preliminary showing that his sanity at the time of the offense is likely to be a significant factor at trial, the Constitution requires that a State provide access to a psychiatrist's assistance on this issue if the defendant cannot otherwise afford one.

Reiterating Griffin, the Court noted that it "has long recognized that when a State brings its judicial power to bear on an indigent defendant in a criminal proceeding, it must take steps to assure that the defendant has a fair opportunity to present his defense." This requirement stems from the Fourteenth Amendment Due Process Clause's guarantee of fundamental fairness: every defendant must be afforded "the opportunity to participate meaningfully in a judicial proceeding in which his liberty is at stake." As discussed above in Part II(C), the Burger-era Court was moving away from the equality principle and the Equal Rights Amendment.

73. Id.
74. Id.
75. Id.
76. Ake, 470 U.S. at 73. Future dangerousness was an aggravating factor in Oklahoma's capital punishment regime. See id. at 86.
77. Id. at 73.
78. Id.
81. Ake, 470 U.S. at 74.
82. Id. at 76 (citing, inter alia, Griffin, 351 U.S. at 12).
83. Id.; see U.S. CONST. amend. XIV § 1; see also Medina v. California, 505 U.S. 437, 444-45 (1992) (stating that "[t]he holding in Ake can be understood as an expansion of earlier due process cases holding that an indigent criminal defendant is entitled to the minimum assistance necessary to assure him a 'fair opportunity to present his defense' and 'to participate meaningfully in [the] judicial proceeding'" (quoting Ake, 470 U.S. at 76)).
Protection Clause in criminal cases; in fact, the Ake Court expressly disavowed any reliance on the Equal Protection Clause. Despite this, the Ake opinion draws heavily on the language and logic employed in the Griffin / Douglas line of cases. Justice Marshall noted that "justice cannot be equal where, simply as a result of his poverty, a defendant is denied" the ability to present fully his case within the adversarial system. Referencing, inter alia, Griffin, Douglas, and Gideon, Justice Marshall noted:

Meaningful access to justice has been the consistent theme of these cases. We recognized long ago that mere access to the courthouse doors does not by itself assure a proper functioning of the adversary process, and that a criminal trial is fundamentally unfair if the State proceeds against an indigent defendant without making certain that he has access to the raw materials integral to the building of an effective defense. Thus, while the Court has not held that a State must purchase for the indigent defendant all the assistance that his wealthier counterpart must buy, see Ross v. Moffitt . . . it has often reaffirmed that fundamental fairness entitles indigent defendants to an adequate opportunity to present their claims fairly within the adversary system.

Thus, Ake recognizes that in our adversarial system of justice, the parties to a criminal case must have some parity of resources. The above quoted language,

84. Ake, 470 U.S. at 87 n.13 ("Because we conclude that the Due Process Clause guaranteed to Ake the assistance be requested and was denied, we have no occasion to consider the applicability of the Equal Protection Clause."). The manner in which the Ake majority employs the "fundamental fairness" aspect of the Due Process Clause, however, is clearly informed and defined by equal protection concepts. See David A. Harris, Ake Revisited: Expert Psychiatric Witnesses Remain Beyond Reach for the Indigent, 68 N.C. L. REV. 763, 780-81 (1990) (noting that "[w]hile the right announced in Ake was based on the due process clause, the opinion contains much equality-oriented language") (footnote omitted) (hereinafter Harris, Ake Revisited); John M. West, Note, Expert Services and the Indigent Criminal Defendant: The Constitutional Mandate of Ake v. Oklahoma, 84 Mich. L. REV. 1326, 1336 (1986) (noting that due process's "fundamental fairness" concept has strong equal protection element); see also Gary S. Goodpaster, The Integration of Equal Protection, Due Process Standards, and the Indigent's Right of Free Access to the Courts, 56 IOWA L. REV. 223, 245 (1970) (noting that "[e]qual protection and due process analyses are virtually the same when one comes to classifications which are arguably fundamentally unfair in the traditional due process sense"). Thus, although one could read Ake as a further step in the Court's rejection of the Equal Protection Clause's place in criminal jurisprudence, one also could read it as simply another case in which Justice Marshall conflated and merged the due process and equal protection concepts; and, therefore, as an attempt by the Justice to resuscitate the equality principle so maligned by the Ross opinion. See Richard H. W. Maloy, Thurgood Marshall and the Holy Grail— The Due Process Jurisprudence of a Consummate Jurist, 26 PEPP. L. REV. 289, 335-50 (1999) (arguing that Justice Marshall's opinions—especially his opinion in Ake—reflect Marshall's belief that equal protection and due process share much common ground).


86. Ake, 470 U.S. at 77 (citations and internal quotations omitted).
while giving lip service to Ross, returns to the central premise of the equality principle: the American system of justice is offended when a defendant, merely because of scant financial resources, is unable to present fully her case within the adversarial process. In fact, the American system of justice is so offended that the state must take affirmative steps to alleviate the effects of this poverty and provide the indigent defendant with the tools needed to present fairly her claims.

Applying the due process framework it outlined in *Matthews v Eldridge,* the Court balanced the three factors relevant to determining what conditions require a trial court to provide expert assistance to the indigent defendant. The *Ake* Court noted that the first *Matthews* factor—the individual's interest in the accuracy of the criminal proceeding—is "almost uniquely compelling" in the criminal proceeding where life and liberty are at risk. The Court, therefore, noted that the first *Matthews* factor weighed heavily in the analysis and counseled towards providing Ake with the additional safeguard of the expert. Citing the second *Matthews* factor, the State of Oklahoma argued that "to provide Ake with psychiatric assistance... would result in a staggering [financial] burden to the state." The Court, however, summarily rejected the State's contention. Citing the federal system and several state systems, the Court noted that many jurisdictions already "make psychiatric assistance available to indigent defendants, and they have not found the financial burden so great as to preclude this assistance."

Finally, the Court examined the third *Matthews* factor: the "probable value of the additional or substitute procedural safeguards that are sought, and the risk

88. *Ake*, 470 U.S. at 77; see *Matthews v. Eldridge*, 424 U.S. 319, 335 (1976) (holding that due process requires courts to balance private interest that will be affected by official action, government's interest—including function involved and fiscal and administrative burdens—that providing additional procedural safeguards would entail, and risk of erroneous deprivation of such interest through procedures currently used and probable value of any additional safeguards).
89. *Ake*, 470 U.S. at 78. In fact, the applicability of the *Matthews* three-pronged test to criminal procedure is questionable because the criminal process is already "quite consciously unbalanced in favor of the individual interest." Charles H. Koch, *A Community of Interest in the Due Process Calamus*, 37 HOUS. L. REV. 635, 642 n.20 (2000). In other words, unless the requested additional safeguards are truly outrageous, an honest application of the *Matthews* test almost always counsels for more process and safeguards in the criminal context. For a discussion of the *Ake* Court's application of the *Matthews* test see Todd E. Pettys, *Evidentiary Relevance, Morally Reasonable Verdicts, and Jury Nullification*, 86 IOWA L. REV. 467, 523-25 (2001).
90. *Ake*, 470 U.S. at 78.
91. *Id.*
92. *Id.* (citations omitted). Some federal courts had, even prior to *Ake*, been fairly generous in appointing mental health experts at the government's expense to indigent defendants. See, e.g., Brinkley v. United States, 498 F.2d 505, 509-11 (8th Cir. 1974) (holding that trial court's refusal to grant indigent defendant's request for appointment of independent mental health examination was error); United States v. Theriault, 440 F.2d 713, 717 (5th Cir. 1971) (Wisdom, J., concurring) (stating that trial court should grant request for government-funded expert when defense attorney "makes a reasonable request in circumstances in which he would independently engage such [expert] services if his client had the financial means to support his defenses") (footnote omitted).
of an erroneous" verdict if those safeguards are not provided. The Court initially noted the "pivotal" role that psychiatry plays in the modern criminal proceeding. Because the criminal law makes the criminal defendant's mental state relevant to his culpability and the punishment he might suffer, the "assistance of a psychiatrist may well be crucial to the defendant's ability to marshal his defense." The Court noted that mental health experts perform examinations and evaluations, and gather facts that they can share with the judge and the jury. Mental health professionals can explain complex and arcane concepts to the jury in an accessible and understandable fashion. In this way, psychiatrists "assist lay jurors, who generally have no training in psychiatric matters, to make a sensible and educated determination about the mental condition of the defendant at the time of the offense."

The Court noted, however, that psychiatry is not an exact science; thus, equally competent psychiatrists will often disagree on a patient's mental health status or, even more fundamentally, on what constitutes mental illness. Because of the potential for disagreement among experts, the Court noted that it was especially important that a criminal defendant have access to an independent expert. Because the jury remains the ultimate factfinder with respect to mental health issues, it is crucial that both parties to the litigation be able to present their cases to "enable the jury to make its most accurate determination of the truth on the issue before them." The Court, therefore, held that if a defendant is "able to make an ex parte threshold showing to the trial court that his sanity is likely to be a significant factor in his defense," the trial court must appoint such an expert at state expense.

The Court also noted, however, that the trial court's decision to deny Ake's request for an expert denied him the "means of presenting evidence to rebut the State's evidence of his future dangerousness." Here, the Ake Court authorized the use of the court-appointed expert as a "trial shield" to rebut the State's

93. Ake, 470 U.S. at 77 (citing Little v. Streater, 452 U.S. 1, 6 (1981); Matthews, 424 U.S. at 335).
94. Ake, 470 U.S. at 79.
95. Id. at 80.
96. Id.
97. Id. at 81.
98. Id. This observation is no less true now than when it was made in 1985. In fact, pointing to recently conducted studies, Professor Christopher Slobogin notes that "field research indicates that mental health professionals involved in everyday practice may disagree more than half the time even on major diagnostic categories such as schizophrenia and organic brain syndrome." Christopher Slobogin, Doubts About Daubert: Psychiatric Anecdote as a Case Study, 57 WASH. & LEE L. REV. 919, 920 (2000) (emphasis added) (footnotes omitted).
100. Id.
101. Id. at 82-83.
102. Id. at 83 (emphasis added).
case—a use analytically distinct from the defense expert as a “trial sword” used to present a more “offensive” defense such as insanity. This authorization is crucial to understanding the relationship between Daubert and Ake.

In Barefoot v. Estelle, the Court upheld the prosecution’s use of mental health experts to present testimony regarding a defendant’s potential for future dangerousness. In Ake, the Court admitted that in reaching its decision in Barefoot it relied on the basic “assumption that the factfinder would have before it both the views of the prosecutor’s psychiatrists” and the opposing views of the defendant’s experts, and would, therefore, “be competent” to see any shortcomings in the prosecution’s case and to reach the correct decision about the likelihood of future acts of violence. If the adversarial system is to function properly, the defendant must have access to an expert to assist her in rebutting the government’s case. Therefore, the Court implicitly recognized that the Fourteenth Amendment requires that the state provide the indigent defendant with a defense consultant who will act as a “shield” against the government’s use of expert testimony and scientific evidence. The Daubert case, decided eight years later, would have implications on the function and duty of the Ake expert as trial shield.

B. Making Justice Rehnquist’s Nightmare a Reality: Lower Courts Interpret Ake

In his dissenting opinion in Ake, then-Justice Rehnquist stated:

[E]ven if I were to agree with the Court that some right to a state-appointed psychiatrist should be recognized here, I would not grant the broad right to access to a competent psychiatrist who will conduct an appropriate examination and assist in evaluation, preparation, and presentation of the defense . . . . A psychiatrist is not an attorney, whose job it is to advocate . . . . [A]ll the defendant should be entitled to is one competent opinion—whatever the witness’ conclusion—from a psychiatrist who acts independently of the prosecutor’s office. Although the independent psychiatrist should be available

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103. PAUL C. GIANNELLI & EDWARD J. IMWINKELRIED, SCIENTIFIC EVIDENCE § 4-5(E), at 229 (3d ed. 1999) (noting that “the [Court recognized that Ake encompasses more than a testifying defense expert; it requires a consulting expert”) [hereinafter GIANNELLI & IMWINKELRIED, SCIENTIFIC EVIDENCE].


106. Ake, 470 U.S. at 84 (citing Barefoot, 463 U.S. at 899).

107. See id. This “trial shield” is quite different from the “trial sword” also discussed by the Ake Court. The expert as trial sword is useful in presenting “offensive” defenses—e.g., insanity, diminished capacity, or duress—while the expert as trial shield is useful for educating defense counsel on the science being employed by the prosecution’s experts, arming defense counsel with the knowledge necessary to cross-examine effectively the prosecution’s experts, and in convincing the court, during the process of evidentiary voir dire, to reject the prosecution’s proffer of scientific or technical evidence.
to answer defense counsel’s questions prior to trial, and to testify if
called, I see no reason why the defendant should be entitled to an
opposing view, or to a ‘defense’ advocate.  

Similarly, Chief Justice Burger, although concurring in the majority’s decision,
explicitly limited his concurrence to the facts of the case by stating that lower
courts should limit the Ake opinion to psychiatric assistance in capital cases.

Despite these admonitions, many lower courts have applied the Ake holding
to situations quite distinct from Ake itself. Justice Rehnquist’s dissent and Justice
Burger’s concurrence have, however, given courts pause when they consider
such extensions and have caused some lower courts to read Ake quite narrowly.
Moreover, the majority opinion itself precluded a consistent treatment of the Ake
holding by explicitly leaving “to the States the decision on how to implement”
the right announced.

For instance, even within the context of defenses based on mental health
issues, the courts have split in deciding what constitutes a proper mental health
expert. Lower courts have been forced to determine what standard to apply
to a violation of the right announced in Ake. The courts have been required
to determine if the ineffective assistance of counsel standard, announced in
Strickland v. Washington, applies to Ake experts. In addition, the courts have

108. Id. at 92 (Rehnquist, J., dissenting) (internal citations, quotations, and emphasis omitted).
If one takes the equality principle seriously, Justice Rehnquist’s dissent misses the mark. The
wealthier defendant is not precluded from employing an expert witness who acts as a defense
consultant; thus, according to Griffin and (especially) Douglas, the indigent defendant must have
some similar ability. See supra notes 12-43 and accompanying text.


110. Id at 83. This bow to federalism mirrored the Griffin Court’s decision to leave to the state
courts the discretion to “find other means of affording adequate and effective appellate review to
indigent defendants.” Griffin, 351 U.S. at 20; see also supra note 27. Moreover, the Court’s subse-
quent refusal to grant certiorari in a number of cases involving the right announced in Ake further
compounded the confusion. See Bailey, supra note 5, at 414-20 (discussing cases involving Ake
claims in which Court refused to grant writs of certiorari and arguing that Court’s refusal to grant
certiorari in these cases has added to confusion amongst lower courts).

111. Compare Lindsey v. State, 330 S.E.2d 563, 565 (Ga. 1985) (holding that only psychiatrist
satisfies Ake’s mandate that defendant have access to mental health expert), with Funk v. Common-
by clinical psychologist— as opposed to psychiatrist—violated mandate of Ake).

112. See, e.g., Castro v. Oklahoma, 71 F.3d 1502, 1515-16 (10th Cir. 1995) (applying “harmless
error” analysis to Ake violation, inquiring as to whether violation had “substantial and injurious
effect or influence in determining the jury’s verdict”) (internal quotations and citations omitted);
Starr v. Lockhart, 23 F.3d 1280, 1292 (8th Cir. 1994) (applying harmless error analysis to Ake
violation, inquiring as to whether violation was harmless “beyond a reasonable doubt”), cert. denied,


assistance of counsel); U.S. CONST. amend. VI (guaranteeing right to counsel). Lower courts
generally have held that an expert cannot be “ineffective” in the Sixth Amendment, Strickland sense
been faced with the question of whether—Justice Burger's concurrence in *Ake* aside—the *Ake* right extends to noncapital defendants.\(^{115}\)

Most importantly for this Article's purposes, the courts have been required to determine whether the right announced in *Ake* entitles defendants to experts other than mental health professionals. In *Caludell v Mississippi*,\(^{116}\) the Court rejected a capital defendant's claim that the trial court's refusal to appoint a fingerprint expert and a ballistics expert violated the mandate of *Ake*.\(^ {117}\) The *Caludell* Court, however, noted that the defendant had "offered little more than undeveloped assertions that the requested [expert] assistance would be beneficial."\(^ {118}\) Thus, *Caludell* does not hold that the Constitution never requires the appointment of experts other than mental health professionals. Most courts, in fact, have concluded that the principles announced in *Ake* extend well beyond mental health experts and have consistently held that the Constitution requires the appointment of a wide variety of nonpsychiatric experts for indigent defendants.\(^ {119}\) These cases, of course, are crucial in applying the *Ake* doctrine to the


118. *Id.* at 323-24 n.1.

119. See, e.g., Little v. Armontrout, 835 F.2d 1240, 1243 (8th Cir. 1987) (holding that *Ake* opinion extends beyond psychiatric witnesses, stating there "is no principled way to distinguish between psychiatric and nonpsychiatric experts"), *cert. denied*, 487 U.S. 1210 (1988); Dubose v. State, 662 So. 2d 1189, 1197-99 (Ala. 1995) (extending *Ake* to nonpsychiatric witnesses and holding that indigent capital defendant was entitled to DNA expert); Cade v. State, 658 So.2d 550, 555 (Fla. Dist. Ct. App. 1995) (recognizing that *Ake* extends to nonpsychiatric witnesses); Polk v. State, 612 So.2d 381, 393-94 (Miss. 1992) (noting that *Ake* entitled indigent defendant to DNA expert at state expense); Tibbs v. State, 819 P.2d 1372, 1376-77 (Okla. Crim. App. 1991) (noting that *Ake* "must necessarily be extended to include any expert which is necessary for an adequate defense"); Husske
Daubert standard.

In another area highly relevant to Ake's relationship with Daubert, the lower courts have struggled with whether the Ake expert must be an independent, defense-loyal expert, or whether the appointment of a neutral expert—whose findings are available to both the prosecution and the defense—satisfies the mandate of Ake. In his dissenting opinion, Justice Rehnquist counseled against interpreting Ake as giving rise to an independent expert who would function as an "advocate" for the defense. Instead, Justice Rehnquist argued that the majority's opinion requires no more than an examination by a neutral witness whose findings are available to both the prosecution and the defense.

The Ake majority, however, explicitly stated that for the adversarial system to function properly, the jury must have before it "both the views of the prosecutor's [experts] and the opposing views of the defendant's [experts]." This language strongly supports the notion that the Ake expert is to be a partisan defense advocate. Most lower courts, therefore, have held that while an indigent defendant does not have the constitutional right to the expert of her choice, only an independent, defense-loyal expert satisfies the mandates of due process and the Ake opinion. For example, in Smith v. McCormick, the Ninth Circuit


120. Compare Granviel v. Lynaugh, 881 F.2d 185, 191 (5th Cir. 1989) (holding that appointment of neutral expert "whose opinion and testimony is available to both sides" satisfies mandate of Ake), cert. denied, 495 U.S. 963 (1990), with Smith v. McCormick, 914 F.2d 1153, 1158-59 (9th Cir. 1990) (holding that "under Ake, evaluation by 'neutral' court psychiatrist does not satisfy due process," collecting cases), cert. denied, 522 U.S. 965 (1997).

121. Ake, 470 U.S. at 92 (Rehnquist, J., dissenting).

122. Id. (Rehnquist, J., dissenting).

123. Id. at 84 (emphasis added) (internal quotations and citations omitted).

124. See West, supra note 84, at 1347 (arguing that language of Ake opinion dictates that role of Ake expert should be that of partisan advocate for defense); see also Michael J. Todd, Case Note, Criminal Procedure—Due Process and Indigent Defendants: Extending Fundamental Fairness to Include the Right to Expert Assistance, Ake v. Oklahoma, 29 How. L.J. 609, 621 (1986) (same).

125. See, eg., Starr v. Lockhart, 23 F.3d 1280, 1290-91 (8th Cir. 1994) (holding that neutral expert does not satisfy due process), cert. denied, 513 U.S. 995 (1994); United States v. Sloan, 776 F.2d 926, 929 (10th Cir. 1985) (holding that appointed expert must be independent from prosecution); Christy v. Horn, 28 F. Supp. 2d 307, 321 (W.D. Pa. 1998) (holding that "neutral" expert does not satisfy mandate of Ake and stating that "defendant is denied the essential benefits of an expert when the services of the doctor must be shared with the prosecution"); Polk v. State, 612 So. 2d 381, 393-94 (Miss. 1992) (holding that Ake expert must be independent from prosecution). Illustratively, the Starr court compared the expert required by Ake to the counsel required by the Sixth Amendment and Gideon, like the appointed lawyer, the appointed expert must function as a partisan advocate on the behalf of the criminally accused. Starr, 23 F.3d at 1291. But see Kordenbrock v. Scroggy, 889 F.2d 69, 75-76 (6th Cir. 1989) (suggesting that appointment of neutral expert satisfies mandate of Ake), rev'd on other grounds, 919 F.2d 1091 (6th Cir. 1990) (en banc); Granviel v. Lynaugh, 881 F.2d
reasoned that if the defense is required to share the conclusions of the *Ake* expert with the prosecution, competent counsel might forgo altogether expert evaluation out of fear of harming her client. The *Smith* court, therefore, held that *Ake* requires that defense counsel have the ability to consult with an expert regarding possible defenses and possible weaknesses in the prosecution's case without disclosing the expert's findings to the prosecution. Such a reading of *Ake* seems inevitable given the adversarial nature of our criminal process. *Smith*, and other opinions that reach the same conclusion, require that the *Ake* expert become a true member of the defense team and, therefore, dictate a larger role for the *Ake* expert in the *Daubert* framework.

Lower courts must also decide whether a defendant may request an *Ake* expert in an ex parte hearing. In dictum, the *Ake* Court stated that when a “defendant is able to make an ex parte threshold showing . . . that his sanity is likely to be a significant factor . . . the need for the assistance of a psychiatrist is readily apparent.” The *Ake* Court, however, ultimately left “the decision on how to implement” the right to the lower courts; thus, although most courts follow the *Ake* dictum and allow indigent defendants to make their *Ake* requests ex parte, some do not.

185, 191 (5th Cir. 1989) (holding that appointment of neutral expert “whose opinion and testimony is available to both sides” satisfies mandate of *Ake*), *cert. denied*, 495 U.S. 963 (1990).

126. 914 F.2d 1153 (9th Cir. 1990).


128. *Id*.

129. As noted by the Supreme Court with respect to the Sixth Amendment right, if the criminal justice process “loses its character as a confrontation between adversaries, the constitutional guarantee is violated.” United States v. Cronic, 466 U.S. 648, 656-57 (1984). Although the *Orzac* Court made this statement in respect to the Sixth Amendment right to counsel, while the *Ake* right to expert assistance are necessary to ensure compliance with the Constitution's mandate that the criminally accused have a meaningful opportunity to present a complete defense within the strictures of our adversarial system of justice. See *Crane v. Kentucky*, 476 U.S. 683, 690 (1986) (“Whether rooted directly in the Due Process Clause . . . or . . . the Sixth Amendment . . . the Constitution guarantees criminal defendants a meaningful opportunity to present a complete defense.”) (internal quotations and citations omitted).

130. *Ake*, 470 U.S. at 82-83.

Courts that allow an indigent defendant to make an ex parte request for expert assistance have the better argument: when a defendant is forced to make her request in front of the prosecution, she necessarily reveals trial strategy and information about her defense. In fact, the Supreme Court of North Carolina, in *State v Ballard*, held that ex parte *Ake* hearings are *constitutionally* mandated because "[a] hearing open to the State necessarily impinges upon the defendant's ... privilege against self-incrimination." In addition, because a defendant may choose to forgo altogether expert assistance rather than reveal sensitive materials and trial strategy, a court that denies an ex parte request for appointment of an *Ake* expert risks precluding the defendant from making a proper and complete investigation of the strength of the prosecution's case and the strength and existence of any available defenses. Such an outcome has the obvious potential to reduce the accuracy of the criminal process. Furthermore, courts that deny indigent defendants an ex parte request for the appointment of an expert ignore the equality principle that the *Ake* decision reaffirmed. A wealthy defendant simply can hire an expert without any court involvement; the wealthy defendant, therefore, need not disclose any information or trial strategy to the prosecution in retaining the necessary defense services. Honest application of the equality principle demands that the indigent defendant be granted the same opportunity for expert assistance—free from prosecutorial involvement—that her wealthier counterpart enjoys.

Many lower courts note that the *Ake* opinion also requires courts to appoint experts to act as "trial shields," even though the *Ake* opinion itself focused on the expert's role in asserting the sword-like defense of insanity. In *Moore v Kemp*, the court stated that the *Ake* expert could be used both to present a

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134. *See People v. Anderson*, 742 P.2d 1306, 1322 (Cal. 1987) (noting that ex parte requests for experts "free the defense from the course it otherwise would have to steer between the Scylla of publicly applying for needed funds and in so doing disclosing some of the defense to the prosecution and the Charybdis of keeping the defense secret but, in so doing, foregoing the necessary [expert assistance]") (citations omitted).
135. Moreover, the prosecution obviously does not need to obtain court approval in order to retain expert assistance.
136. *Cf. State v. Barnett*, 909 S.W.2d 423, 428 (Tenn. 1995) (noting that courts should not force indigent defendants to reveal defense theories in order to gain appointment of expert assistance when wealthier defendants are under no such requirements).
137. 809 F.2d 702 (11th Cir. 1987).
defense and to “aid defense counsel in confronting the prosecution’s case . . . [and] its expert witnesses.” Similarly, in United States v Sloan, the court stated that the Ake expert is not limited to the presentation of sword-like defenses. If she can make out the requisite showing of need, defense counsel is entitled to use the Ake expert to assist in the interpretation of the findings of the prosecution’s experts and to aid in the preparation of their cross-examination. As discussed in Part VI, this conception of the Ake expert as a trial shield is crucial to understand the interplay between the Ake doctrine and the adversarial Daubert standard for admissibility of expert testimony.

Finally, the Ake Court stated that a trial court should appoint an expert when the defendant is able to make a “threshold showing” that she requires such assistance. As noted by the Supreme Court of Alabama, however, the Ake Court did not specifically state what this “threshold showing” entails. The lower courts have been forced, therefore, to flesh out the meaning of “threshold showing” and determine what standard a defendant requesting an Ake expert must satisfy before she is entitled to the requested assistance.

The various courts have set standards ranging from quite difficult to more lenient. On the one hand, some courts have required a defendant seeking appointment of an Ake expert to show that the expert would be “critical” to the defense and that the expert would testify to science subject to varying opinion. Other courts, however, merely require that a defendant seeking appointment of an expert show that the requested expert would be of “material assistance” to the defendant and that denial of the expert would result in the trial being “unfair.” At bottom, the “threshold showing” required by most courts seems to boil down to the defendant showing that (a) the expert would assist the defendant with an

139. 776 F.2d 926 (10th Cir. 1985).
140. United States v. Sloan, 776 F.2d 926, 929 (10th Cir. 1985).
141. Id.; see also United States v. Fazzini, 871 F.2d 635, 637 (7th Cir. 1989) (noting that Ake expert “can assist in preparing the cross-examination of . . . experts retained by the government”), cert. denied, 493 U.S. 982 (1989).
142. See infra notes 254-288 and accompanying text.
143. Ake, 470 U.S. at 82.
144. Moody, 684 So. 2d at 119.
145. See Scott v. Louisiana, 934 F.2d 631, 633 (5th Cir. 1991) (stating that expert should only be appointed if expert’s testimony is “both ‘critical’ to the conviction and subject to varying expert opinion”) (internal quotations and citations omitted). Similarly, the Tenth Circuit has stated that courts should only appoint experts when the underlying science or subject matter “may well be decided one way or the other. It must be [a subject] that is fairly debatable or in doubt.” Liles v. Saffle, 945 F.2d 333, 336 (10th Cir. 1991) (internal citations and quotations omitted), cert. denied, 502 U.S. 1066 (1992).
146. Husske v. Commonwealth, 476 S.E.2d 920, 925 (Va. 1996) (stating that in order to obtain appointment of expert, indigent defendant must demonstrate that “the services of an expert would materially assist him in the preparation of his defense and that the denial of such services would result in a fundamentally unfair trial”), cert. denied, 519 U.S. 1154 (1997).
issue relevant to her case; (b) the need for this expert assistance is more than merely hypothetical;\textsuperscript{147} and (c) the failure to appoint such an expert would result in prejudice or an unfair trial.\textsuperscript{148} As discussed below in Part VI, a proper understanding of the \textit{Daubert} standard can greatly increase defense counsel’s ability to make out the requisite “threshold showing.”\textsuperscript{149}

C. The Codification of \textit{Ake}

As recognized by the \textit{Ake} Court itself, several states, as well as the federal government, provided some amount of expert assistance to indigent defendants even prior to the \textit{Ake} decision.\textsuperscript{150} In addition, in the wake of \textit{Ake}, various legislatures enacted statutes to provide indigent criminal defendants with expert assistance.\textsuperscript{151} These statutes vary in their scope and may provide more or less access to expert assistance than \textit{Ake} itself.\textsuperscript{152} The various state and federal statutes vary widely in their scope and are too many to analyze individually in this Article; the reader should note, however, that many legislatures have codified in some manner the \textit{Ake} right.\textsuperscript{153} By way of

\textsuperscript{147} In other words, the defendant must show more than merely “undeveloped assertions that the requested [expert] assistance would be beneficial.” \textit{Caldwell} 472 U.S. at 324 n.1.

\textsuperscript{148} See, e.g., Little v. Armontrout, 835 F.2d 1240, 1244 (8th Cir. 1987) (stating that “defendant must show a reasonable probability that an expert would aid in his defense, and that denial of expert assistance would result in an unfair trial”), \textit{cert. denied}, 487 U.S. 1210 (1988); Dubose v. State, 662 So. 2d 1189, 1192 (Ala. 1995) (stating that “defendant must show a reasonable probability that an expert would aid in his defense and that the denial of an expert to assist at trial would result in a fundamentally unfair trial”); Tibbs v. State, 819 P.2d 1372, 1377 (Okla. Crim. App. 1991) (stating that defendant must show “specific need” for requested expert assistance).

\textsuperscript{149} See infra notes 254-303 and accompanying text.


\textsuperscript{151} See generally Bailey, supra note 5, at 457.

\textsuperscript{152} Of course, the existence of a statute providing for expert assistance does not preclude the operation of \textit{Ake}; in other words, a defendant may seek appointment of an \textit{Ake} expert even if an applicable statute would provide a similar right. See Shruti S. B. Desai, Article, \textit{Effective Capital Representation of the Mentally Retarded Defendant}, 13 \textit{Capital Def. J.} 251, 269-70 (2001) (discussing possible tactical reasons why \textit{Ake} expert may be preferable to statutorily-provided experts).

example, Virginia Code Section 19.2-264.3:1 provides expert assistance to a capital defendant when the defendant’s mental condition is relevant to capital sentencing. 154 Obviously, this statute only applies to mental health experts and only provides assistance to capital defendants; conversely, the interpretation of Ake given by the Supreme Court of Virginia provides broader assistance than its statutory counterpart. 155 The standard the defendant must meet to obtain expert assistance under Section 19.2-264.3:1 is, however, far easier to meet than under any judicial interpretation of Ake, under Section 19.2-264.3:1, the defendant merely must show that she is charged with capital murder and that she is indigent. 156 Once the court appoints an expert pursuant to Section 19.2-264.3:1, however, all reports generated by this expert must be provided to the attorney for the Commonwealth. 157 Use of an expert appointed pursuant to Section 19.2-264.3:1, therefore, risks “exposing the defense mitigation theory in pretrial discovery.” 158

The Oregon legislature has also codified the Ake right. 159 Section 135.055(3)(a) of the Oregon Revised Code provides that a “person determined to be eligible for appointed counsel is entitled to necessary and reasonable expenses for investigation, preparation and presentation of the case.” 160 The Oregon courts have interpreted the statute to emphasize the expert’s utility as trial shield. For example, in State v. Gleason, 161 defense counsel, defending an indigent defendant against charges of manslaughter, requested “a medical expert to assist him in reviewing voluminous medical records, preparing for cross-examination of the [prosecution’s] experts and evaluating possible defenses.” 162 The trial court denied this request; however, the Oregon Court of Appeals reversed. 163 The appellate court stated that the trial court’s decision denied the defendant the opportunity to prepare effectively his defense: “This case involved complex medical issues beyond the legal expertise of [the] defendant’s attorney.

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154. VA. CODE ANN. § 19.2-264.3:1 (Michie 2000) (providing for expert assistance when capital defendant’s mental condition is relevant to capital sentencing). The Virginia General Assembly passed this statute in 1986, in the wake of the Ake decision.

155. See Haske, 476 S.E.2d at 925 (holding that Ake requires appointment of experts conversant in fields other than mental health and holding that Ake right extends to noncapital defendants).

156. § 19.2-264.3:1(A).

157. § 19.2-264.3:1(D).

158. Desai, supra note 152, at 270.


160. Id.


163. Id.
The availability of an expert medical witness was vital for adequate trial preparation . . . and in developing effective cross-examination. In other words, Section 135.055(3), as interpreted by the Oregon courts, has codified the Ake expert as "trial shield."

As illustrated by the Oregon and Virginia statutes, the right to expert assistance provided by various statutes varies greatly from state to state and may vary in important ways from the right to expert assistance guaranteed by Ake. Counsel, therefore, should examine the relevant statutory scheme operating in their particular jurisdiction and determine whether a statutorily-provided expert or an expert appointed pursuant to Ake would be more beneficial.

IV. Daubert v. Merrell Dow Pharmaceuticals: Its History, Adoption, and Progeny

A. Before Daubert: The Unacceptability of General Acceptance

In 1923, the United States Court of Appeals for the District of Columbia issued a short, cryptic opinion that addressed the admissibility of expert testimony regarding the "systolic blood pressure deception test." This test, administered to a defendant in a homicide proceeding, allegedly measured changes in the blood pressure of the test subject—blood pressure changes "influenced by change[s] in the emotions of the witness." The machine allegedly measured blood pressure changes accompanied by the giving of "conscious deception[s] or falsehoods." In other words, the systolic blood pressure deception system was a simple lie-detector test.

The defendant, James Alphonzo Frye ("Frye"), wished to present the testimony of an expert witness who had administered the test to the defendant; the defendant apparently had shown no change in systolic blood pressure when questioned about his involvement in the charged crime. The prosecution objected, the trial court sustained the objection, and Frye was convicted. The D.C. Circuit, noting that the "systolic blood pressure deception test" had not yet "gained general acceptance in the particular field in which it belongs," affirmed the trial court's decision. This standard for the admissibility of expert testimony became known as the "Frye standard" or the "general acceptance" test.

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164. Id.
166. Id.
167. Id.
168. Id. at 1014.
169. Id.
171. See Daubert, 509 U.S. at 585-90 (discussing Frye or "general acceptance" test); see also
Although the Frye case went relatively unnoticed at first, by “the mid-1970s, Frye was almost the only test that was used to screen the admissibility of novel scientific theories or techniques, in state and federal courts alike.” By the late 1980s and early 1990s, however, courts and commentators had begun to criticize heavily the Frye standard.

One criticism was that the Frye standard let scientists and the scientific community—rather than judges, lawyers, and the legal system—determine the admissibility of scientific testimony. The scientific community, in deciding whether to accept or reject a particular theory, idea, or scientific test, dictated whether that theory would be admitted. Moreover, because the Frye standard precluded the admission of a scientific concept that, although “correct,” had not yet gained the requisite general acceptance, it seriously impeded the admission of novel scientific concepts that might—after the prosecution was over or the statute of limitations had expired—ultimately gain acceptance. One judge colorfully noted:

I suppose that Christopher Columbus could never have been qualified as an expert to render an opinion on circumnavigation, and the Wright brothers would never have been able to testify as experts and give opinions relating to flight because, for much of their day, their views never gained general acceptance within the scientific community.

At bottom, Frye failed to account for the fact that “[t]oday’s junk science may be tomorrow’s orthodoxy.”

In addition to precluding the admission of novel scientific theories, the Frye standard seemed to be fundamentally at odds with the more liberal admissibility standards of the Federal Rules of Evidence (“FRE”). Simply put, the lower courts were having trouble reconciling Frye with the FRE and with the more

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JASANOFF, supra note 170, at 61.

172. RICHARD LEMPERT, ET AL., A MODERN APPROACH TO EVIDENCE 1040 (2000) (citations omitted); see also David L. Faigman, Elise Porter & Michael J. Saks, Check Your Crystal Ball at the Courthouse Door, Please: Exploring the Past, Understanding the Present, and Wondering About the Future of Scientific Evidence, 15 CARDOZOL. REV. 1799, 1808 (1994) (stating that “[t]hough of little importance at the time it was decided, and barely noticed for decades afterwards, the Frye test eventually became the icon for... the admissibility of scientific evidence”) [hereinafter Faigman, Porter & Saks].


174. See JASANOFF, supra note 170, at 61-62 (discussing criticism of fact that Frye standard allowed scientific community, rather than legal community, to determine admissibility); HUBER, supra note 173, at 15 (noting that “Frye seemed to give mainstream science the final word” in determining courtroom admissibility of scientific evidence).

175. See HUBER, supra note 173, at 16.


177. HUBER, supra note 173, at 16.

178. See JASANOFF, supra note 170, at 62.
modem views of science that had developed since the Fere decision. In fact, by the early 1990s, a circuit split had developed regarding the continued validity of the general acceptance test. Thus, in 1992, the United States Supreme Court granted a petition for a writ of certiorari in order to address the growing dissatisfaction.

B. Daubert v. Merrell Dow Pharmaceuticals

The Daubert case involved the use of expert testimony to prove causation in a toxic tort case. The parents of Jason Daubert, a child born with severe birth defects, brought suit against Merrell Dow Pharmaceuticals ("Merrell Dow"), the maker of Bendectin, a prescription anti-nausea drug Jason's mother had taken during pregnancy. Merrell Dow, contending that there was no competent evidence showing a causal link between Bendectin and birth defects, moved for summary judgment.

In response, the plaintiffs proffered the testimony of several experts. These experts testified that they had conducted both in vitro and animal studies that showed a link between Bendectin and birth defects. The plaintiffs admitted, however, that the results of these studies were not conclusive and, standing alone, could not raise "a reasonably disputable jury issue regarding causation." The plaintiffs' experts, therefore, had conducted a "reanalysis" of earlier epidemiological studies that had found little or no connection between Bendectin and birth defects; the plaintiffs' experts, after recalculating data from these earlier studies, found a strong link between Bendectin and birth defects. Merrell Dow, however, argued that the "reanalysis" technique used by the plaintiffs' experts...
experts failed the *Frye* standard. The district court agreed with Merrell Dow and granted summary judgment.

The United States Court of Appeals for the Ninth Circuit, utilizing the *Frye* standard, noted that the reanalysis utilized by the plaintiffs’ experts had not been generally accepted in the relevant scientific community. Although the Ninth Circuit agreed that the technique of subjecting prior epidemiological studies to reanalysis was generally accepted by scientists, it noted that the scientific community only accepted the conclusions of such a reanalysis when the results had been subjected to “verification and scrutiny by others in the field.” Because the reanalysis of the Bendectin studies conducted by the plaintiffs’ experts had undergone no such “verification and scrutiny,” the Ninth Circuit upheld the district court’s grant of summary judgment.

The Supreme Court granted certiorari and reversed. Justice Blackmun, writing for the majority noted that, although it was still accepted by many courts, the *Frye* standard had come under increasing attack. Rather than discuss the “content” of the *Frye* standard, however, the Court concluded that Congress had superseded the *Frye* test with “the adoption of the Federal Rules of Evidence.” The Court recognized that the FRE set forth a liberalized standard for the admission of evidence. Under Federal Rule of Evidence 702, “If scientific knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness... may testify thereto in the form of an opinion or otherwise.” Nothing in the FRE mentions the “general acceptance” standard, and “a rigid ‘general acceptance’ requirement would be at odds with the liberal thrust of” the FRE. The Court, rejecting the defendant and amici’s conten-

189. *Daubert*, 509 U.S. at 584. In fact, over a decade later, the results of the reanalysis conducted by the Dauberts’ experts still have yet to be published or subjected to peer review. FAIGMAN, supra note 182, at 61.


192. Id. at 1130-31.

193. Id. at 1131 (stating that “[p]laintiffs’ reanalyses... were unpublished, not subjected to the normal peer review process and generated solely for use in litigation”).


195. *Daubert*, 509 U.S. at 585; see also supra notes 172-180 and accompanying text. The fact that Justice Blackmun wrote the majority opinion is illustrative of the fact that in the early 1990s, Justice Blackmun was considered to be the Court’s leading authority on science. JASANOFF, supra note 170, at 63.


197. Id. at 588 (internal quotations omitted); see FED. R. EVID. 702.


199. Various parties, supporting both the plaintiffs and the defendant, filed twenty-two amicus briefs in the *Daubert* case. Id. at 598 (Rehnquist, C.J., dissenting in part and concurring in part). These amicus briefs addressed a wide variety of topics that included the proper definition of scientific knowledge, what constitutes the scientific method, how to ascertain scientific validity, and
tions that the FRE had "somehow assimilated" the Frye standard, held that Congress, in passing the FRE, had overruled the "austere standard" announced in Frye.200

After holding that the FRE had replaced the Frye standard, the Court proceeded to set forth a framework through which trial courts could judge the admissibility of proffered expert evidence.201 Justice Blackmun noted that under the FRE, expert evidence must be both "science" and "knowledge."202 In order to qualify as "scientific knowledge," the knowledge must "be derived by the scientific method."203 The scientific method entails generating a hypothesis and testing this hypothesis to see if it is false.204 Quoting from an amicus brief submitted by the American Association for the Advancement of Science, the majority stated: "Science is not an encyclopedic body of knowledge about the universe. Instead, it represents a process for proposing and refining theoretical explanations about the world that are subject to further testing and refinement."205 The majority, therefore, told district courts faced with scientific testimony to analyze the process through which the testimony was generated; in other words, the expert's ultimate conclusions were not nearly as important as that underlying process.206 When faced with a proffer of scientific testimony, the trial judge must, therefore, make a "preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid," that is, whether it was generated by the scientific method, and "whether that reasoning or methodology properly can be applied to the facts in issue" in the particular case.207

the proper role of peer review. See JASANOFF, supra note 170, at 64 (setting forth excerpts from various amicus briefs in Daubert case).


201. Id. at 589-90. In creating this new framework, Justice Blackmun attempted to replace the simplistic Frye standard with a standard based on a more "modern" understanding of the scientific enterprise. Whether he penned an opinion representative of modern scientific thought is, however, open to debate. See generally JASANOFF, supra note 170, at 63 (stating that Daubert opinion is muddled and lacks a philosophically-coherent framework); David S. Caudill & Richard E. Redding, Junk Philosophy of Science: The Paradox of Expertise and Interdisciplinarity in Federal Courts, 57 WASH. & LEE L. REV. 685, 736-47 (2000) (discussing whether Daubert majority came to correct understanding of modern scientific inquiry).


203. Id.

204. Id.

205. Id.

206. Id. at 595. See generally Kenneth J. Chesebro, Taking Daubert's "Focus" Seriously: The Methodology/Conclusion Distinction, 15 CARDOZO L. REV. 1745 (1994) (discussing Daubert's focus on distinction between experts' conclusions and experts' methodology).

207. Daubert, 509 U.S. at 592-93.
Although the *Daubert* majority was "confident that federal judges possess the capacity to undertake this review," it outlined four factors that will often be pertinent. The first factor is whether the theory or technique can be or has been tested; in other words, whether the proffered testimony is subject to falsification. The second factor is whether the theory or technique has been subjected to peer review and publication. Unlike the *Frye* test, however, publication and peer review are not mandatory to admissibility under *Daubert*. Rather, because "submission to the scrutiny of the scientific community" increases the "likelihood that substantive flaws in methodology will be detected," publication and peer review are a relevant— but not dispositive— consideration in assessing the admissibility of proffered scientific evidence. The third factor is the "known or potential rate of error" of the methodology underlying the testimony and "the existence and maintenance of standards controlling the technique's operation." In other words, the *Daubert* majority counseled lower courts to reject scientific testimony when the methodology used to generate the testimony has a high error rate. Finally, the Court recognized that the trial courts should look to whether the particular methodology has attained "general acceptance" with the relevant scientific community. Although the Court made it clear that "general acceptance" is not dispositive of the issue of admissibility, acceptance or rejection by the relevant community can be an important factor.

Finally, the Court addressed the concern— voiced by Merrell Dow and various amici— that "abandonment of 'general acceptance' as the exclusive requirement for admission will result in a 'free-for-all' in which befuddled juries are confounded by absurd and irrational pseudoscientific assertions." The Court rejected such concerns by pointing to the adversarial process. Judges will be aided in their role as gatekeepers by partisan advocates who will present "contrary evidence," thus rendering trial courts fully informed and able to come

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208. *Id.* at 593. See generally GIANNELLI & IMWINKELRIED, SCIENTIFIC EVIDENCE, supra note 103, at § 1-7(B) (discussing factors outlined by *Daubert* Court).

209. *Daubert*, 509 U.S. at 593. In an effort to give his definition some philosophical credibility, Justice Blackmun supported his definition of the scientific method by pointing to the works of Karl Popper. *Id.* ("The criterion of the scientific status of a theory is its falsifiability, or refutability, or testability.") (citing KARL POPPER, CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE 37 (1989)).

210. *Id.*

211. *Id.* at 593-94.

212. *Id.* at 594 (citations omitted).

213. See FAIGMAN, supra note 182, at 63.


215. *Id.*

216. *Id.* at 595-96.
to the correct decision on the reliability of proffered testimony.\footnote{217} Moreover, although the Court conceded that the trial courts will occasionally admit erroneous or "shaky" science, "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof" will ensure that such testimony will not prevent the jury from reaching the correct determination.\footnote{218} As illustrated below in Part VI, the Court's reliance on the adversarial process has important implications for the Ake framework.\footnote{219}

C. What Effect Has Daubert Really Had?

The Daubert opinion is quite broad and ambiguous. Daubert's mandate that

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\item \textit{Id.} at 596.
\item \textit{Id.}
\item \textit{Id.}
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scientific expert testimony must be based on “scientific knowledge” does not provide much guidance to the lower courts. Initially, some lower courts treated the four factors outlined in Dauert as mandatory. For example, in Belofsky v General Electric Co,220 a district court stated that in making its admissibility determination, it was bound to consider all of the four factors outlined in Dauert.221 In Kumho Tire Co v Carmichael,222 however, the Court made clear that in order for expert evidence to be admissible, trial courts need not analyze scientific evidence under all—or even any—of the four objective factors outlined by the Dauert majority.223 Rather, the trial court must determine whether the factors outlined in Dauert would be helpful in determining the admissibility of the particular expert’s testimony.224 If the district court determines that any or all of the Dauert factors are not helpful in a particular case, it need not apply them.225 The Kumho Court thus reemphasized the wide latitude granted to the district courts in Dauert. A district court, in determining whether proffered testimony qualifies as “scientific knowledge,” can consider any and all factors it deems relevant. This wide latitude was also broadened in General Electric Co v Joiner,226 in which the Court held that appellate courts must apply the “abuse of discretion” standard when reviewing a district court’s application of Dauert.227 Thus, not only do the district courts possess wide discretion in determining whether proffered testimony qualifies as “scientific knowledge,” the appellate courts may not reverse the trial courts’ resolution of admissibility issues unless a ruling is “manifestly erroneous.”228

Common sense suggests that the Dauert standard renders admissible more evidence than did the Frye standard it replaced. Realistically, however, the Dauert

223. See Kumho Tire Co. v. Carmichael, 526 U.S. 137, 151 (1999) (noting that four factors outlined by Dauert majority were not mandatory or exhaustive, rather the factors were “meant to be helpful, not definitive”). See generally Vigilante, supra note 7, at 570-78 (analyzing Kumho decision).
225. Id. The Kumho Court also held that the Dauert standard applies to all expert or technical testimony, not merely to “scientific” expert testimony. Id. at 149. See generally Giannelli & Imwinkelried, Fallout from Kumho, supra note 4, at 13-14 (discussing Kumho Court’s extension of Dauert standard to non-scientific experts).
228. Id. at 142 (internal quotations and citations omitted). The Dauert, Joiner, and Kumho opinions have come to be known as the “Dauert trilogy.”
standard, "[rather than making it easier or more difficult... to get... scientific testimony admitted into evidence," appears mainly to give "federal courts more control over the admissibility issue, rather than deferring under Frye to the scientific community."229 In other words, the new standard empowers the legal system *itself* to determine the credibility of a particular body of science. Whether the criminal justice system is up to this task is the focus of the following Part.

V. Science in the Law: Should Daubert Apply in the Criminal Setting? or, Why do Courts Use the Same Standard for the Admissibility of Expert Evidence in the Civil and Criminal Realms?

[T]here are important differences between the quest for truth in the courtroom and the quest for truth in the laboratory. Scientific conclusions are subject to perpetual revision. Law, on the other hand, must resolve disputes finally and quickly. The scientific project is advanced by broad and wide-ranging consideration of a multitude of hypotheses, for those that are incorrect will eventually be shown to be so, and that in itself is an advance. Conjectures [however] are of little use... in the project of reaching a quick, final, and binding legal judgment.230

The legal system relies on the scientific community to assist it in resolving cases.231 In fact, science is often absolutely crucial in legal disputes.232 As the above quote from the Daubert opinion demonstrates, however, the scientific community and the legal community have quite different goals. The legal system needs to resolve disputes quickly and finally; science is under no such pressures or time-based constraints.233 The scientific community can alter its views on a topic as further studies are conducted; conversely, the legal system "cannot postpone a decision by choosing to wait for more evidence."234 A fundamental

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229. JAMES A. HENDERSON, ET AL., THE TORTS PROCESS 113 (1999). In other words, the "meaning" of the Daubert standard depends, to a large extent, on the predilections of the particular judge. See JASANOFF, supra note 170, at 63 (stating that Daubert's "mixed message... invited others to clarify what Justice Blackmun had left ambiguous"). See generally Lewis H. Larue & David S. Caudill, Post-Trilogy Science in the Courtroom: What are the Judges Doing?, 13 J. CIV. LITIG. 341 (2002) (outlining lower courts' divergent treatment of Daubert standard).


232. See FAIGMAN, supra note 182, at 39-44 (illustrating legal system's dependance on science).

233. See JASANOFF, supra note 170, at 9 (discussing different goals and constraints of legal and scientific inquiry).

234. Id. For a humorous, yet insightful look at the differences between law and science, as well as the legal system's dependance on the scientific community, see Howard T. Marks, Law and Science: A Dialogue on Understanding, in SCIENCE AND LAW: AN ESSENTIAL ALLIANCE 1-14 (William
disconnect exists between the ways in which science and law approach problems. Science recognizes that its theories are subject to constant revision and alteration; law recognizes that it must resolve disputes now. The legal system must, therefore, recognize that at least some of the science upon which it is resolving its disputes will, in time, be rejected as erroneous by the scientific community. In other words, the scientific community will not cease from inquiring into the validity of the scientific opinion upon which a legal dispute was previously resolved.

Like other areas of law, the criminal justice system relies heavily on scientific study and evidence. In fact, most "cases involving criminal charges entail some aspect of scientific evidence and forensic science." The criminal justice system, however, is different from other areas of law—the criminal justice arena is the only area of law in which an individual's liberty or even life are at stake. Thus, we must decide whether we are willing to deprive the criminal defendant of her life or liberty based on scientific evidence that ultimately may prove to be false.


235. See JASANOFF, supra note 170, at 9 (noting difference between scientific and legal inquiry, stating: "Because the law needs closure, the process of legal fact-finding is always bounded in time . . . . [The law] must take a position based on the facts at hand, however premature such a decision may appear in the eyes of scientists"); see also Alexander M. Capron, Daubert and the Quest for Value-Free "Scientific Knowledge" in the Courtroom, 30 U. RICH. L. REV. 85, 86 (1996) ("Science is oriented toward the truth but its claims are presented tentatively and are subject to refutation . . . . In contrast, the law is oriented toward the just resolution of cases rather than truth-finding; verdicts must be rendered even when information is incomplete.")


In constitutional terms, the issue is whether—now that we know the fallibility of our system in capital cases—capital punishment is unconstitutional because it creates an undue risk that a meaningful number of innocent persons, by being put to death before the emergence of the techniques or evidence that will establish their innocence, are thereby effectively deprived of the opportunity to prove their innocence.

United States v. Quinones, 196 F. Supp. 2d 416, 418 (S.D.N.Y. 2002). In other words, a scientific technique that has yet-to-be developed may eventually exonerate the criminally convicted; if, however, the government has already executed the defendant, the defendant is unconstitutionally deprived of the benefit of this technique.


The Supreme Court developed the *Daubert* standard in a series of civil cases—specifically, toxic tort and products liability cases. Despite *Daubert*’s tort law pedigree, most lower courts have applied the *Daubert* standard in criminal cases. The *Daubert* Court, however, recognized that the lower courts will occasionally admit some erroneous or “shaky” scientific testimony. While we might be comfortable with a civil verdict based on shaky or erroneous science, why should we accept such an outcome in a criminal case? The American criminal justice system is premised on the idea that “it is better that ten guilty persons escape than that one innocent suffer.” Why then should we apply to criminal cases a standard for the admissibility of expert evidence developed in the lower-stakes realm of tort law—especially a standard that fully recognizes that some testimony based on faulty science will be admitted? The response, of course, is the adversarial system. Unlike the *Frye* standard,


242. 4 WILLIAM BLACKSTONE, COMMENTARIES *358.

243. Justice Blackmun’s dissent in *Barefoot v Estelle* seems to recognize the appropriateness of applying a different standard for the admissibility of scientific evidence in the criminal and civil arenas. *Barefoot v. Estelle*, 463 U.S. 880, 916-38 (1983) (Blackmun, J., dissenting). In *Barefoot*, the majority upheld the trial court’s admission of psychiatric expert testimony regarding a capital defendant’s future dangerousness. *Id.* at 905-06. Writing in dissent, the future author of *Daubert* stated:

> The Court holds that psychiatric testimony about a defendant’s future dangerousness is admissible, despite the fact that such testimony is wrong two times out of three ...
>
> ... In the present state of psychiatric knowledge, this is too much for me. One may accept this in a routine lawsuit for money damages, but when a person’s life is at stake—no matter how heinous his offense—a requirement of greater reliability should prevail. In a capital case, the specious testimony of a psychiatrist, colored in the eyes of an impressionable jury by the inevitable untouchability of a medical specialist’s words, equates with death itself.

*Id.* at 916 (Blackmun, J., dissenting). Despite his concerns in *Barefoot*, Justice Blackmun did not except the criminal justice system from the standard he outlined in *Daubert*. See Daniel W. Shuman, *Expertise in Law, Medicine, and Health Care*, 26 J. HEALTH POL. POL’Y & L. 267, 282-83 (2001) (discussing interplay between *Barefoot* and *Daubert*, positing whether Supreme Court intended *Daubert* to be applied in criminal litigation, and caustically noting that “[a]lthough it might be thought at least as important to avoid erroneous capital punishment or lengthy incarceration as it is to avoid erroneous wealth distribution, the junk science debate has all but ignored criminal prosecutions”) (internal quotations and citations omitted).
which "was easy to apply and required little scientific sophistication on the part of judges,"244 the Daubert standard requires judges to become "amateur scientists."245 The Daubert Court, therefore, relied on the adversarial system to assist judges in their role as "amateur scientists," as well as to assist lay juries in their role as the ultimate finders of fact. The Daubert Court expected the adversarial system to enable the trial court to fulfill properly its gatekeeping function and to empower the jury in its role as rejecter of junk science. The Daubert Court assumed that the lawyer opposed to the admission of expert evidence will present the trial court with the case against admission; this lawyer will present—most likely through her own expert, or through a cross-examination prepared with expert consultation—the reasons why the trial court should deem her opponent's expert inadmissible under Daubert.246 Similarly, on those occasions when the trial judge admits shaky or erroneous science as evidence, the jury system serves as the final check: "[v]igorous cross-examination [and the] presentation of contrary evidence" will enable the jury to make up for the judge's admission and reject the erroneous science.247

On its face, this reliance on lawyers and the adversarial process to assist trial judges in their gatekeeping role and to empower juries in their role as the gatekeeper's corrector is not troubling. In fact, such reliance on lawyers and the adversarial system is well founded in the civil realm in which the Court announced and developed the Daubert standard. In the money-saturated world of the civil tort, access to expert assistance, consultation, and testimony is not difficult to obtain.248 The civil lawyer, whether representing the plaintiff or defense, when faced with an expert proffered by her opponent, likely will have the resources to hire experts of her own—experts to act as consultants and

244. Faigman, Porter & Saks, supra note 172, at 1808; see also FAIGMAN, supra note 182, at 62 (noting that under Frye, the trial judge "need not understand any of the science; he or she must merely identify the pertinent field in which the science falls and survey the opinions of scientists in that field"). Of course, the Frye standard does require judges to resolve occasionally some less-than-clear issues. See JASANOFF, supra note 170, at 62 (noting that Frye requires judges to resolve the sometimes-difficult question of what constitutes the relevant scientific community for the specific issue and then further to decide how much agreement is enough to establish the requisite general acceptance within this community).

245. Daubert, 509 U.S. at 601 (Rehnquist, CJ., concurring in part and dissenting in part) (describing sarcastically trial judge's role under majority's opinion as that of "amateur scientist").

246. See id. at 595-96. See generally Margaret G. Farrell, Daubert v. Merrell Dow Pharmaceuticals, Inc.: Epistemology and Legal Process, 15 CARDOZOL REV. 2183, 2199 (1994) (noting that expert assistance is required in order for generalist judges and lay juries to understand technical and scientific testimony and evidence).

247. Daubert, 509 U.S. at 596.

248. See Giannelli, Civil and Criminal, supra note 241, at 110 (recognizing that civil lawyers have considerable access to expert assistance).
experts to testify at the Daubert admissibility hearing and before the factfinder. Thus, with the aid of expert assistance, the civil lawyer will be able to mount an effective challenge to her opponent's proffered expert at the Daubert hearing and, if her opponent's expert's evidence is nonetheless admitted, will have the resources to mount an effective campaign to discredit this evidence in the eyes of the jury.

As Ake made apparent, however, ready defense access to expert assistance is scarcer in the criminal realm, especially if the defendant is indigent. In contrast, the criminal defendant's adversary, the government-funded prosecutor, "has access to the services of state, county, or metropolitan crime laboratories"—such services "include both the examination of evidence and the court appearance of the expert." The post-Daubert civil world is, therefore, fundamentally different from the situation commonly present in the criminal justice system.

This Part asked whether the Daubert standard should apply to the criminal arena. If the playing field were truly level—if the indigent criminal defendant had access to the expert assistance the Daubert standard requires and assumes—courts' applications of the Daubert standard in criminal litigation would not be troubling. Various studies, however, reveal that there is a chasm between the quality and amount of expert assistance available to the prosecution and the quality and amount of expert assistance available to the indigent criminal defendant. Absent some external mechanism, therefore, the safeguards relied on by

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249. See id.

250. See Ake, 470 U.S. at 77; see also LEMPERT, ET AL., supra note 172, at 1035 (noting that lack of resources often prevents defense access to expert assistance).

251. Gianneli, Civil and Criminal, supra note 241, at 110; see also LEMPERT, ET AL., supra note 172, at 1035 (noting that in many criminal cases "[t]he only experts who are called testify . . . [for] one side—the prosecution—and the defense makes no serious attempts to challenge their conclusions, or no attempt at all. The basic reason for this one-sided presentation is lack of resources"); Douglas W. Vick, Poorhouse Justice: Underfunded Indigent Defense Services and Arbitrary Death Sentences, 43 BUFF. L. REV. 329, 391-94 (1995) (setting forth findings of several studies that reveal inadequate defense access to expert assistance).

252. See Gianneli, Civil and Criminal, supra note 241, at 110 (noting that "[a]ccess to expert testimony is [a] major difference between criminal and civil cases").

253. See id. at 111 (setting forth results of several recent studies that show great disparity of resources between appointed defense counsel and prosecutors); Vick, supra note 251, at 391-94 (discussing studies that reveal inadequate defense access to expert assistance). In addition to such empirical studies, anecdotal observations bear out this disparity of resources: Jack Weinstein, Senior District Court Judge for the Eastern District of New York, has noted that in the federal court system, even with the existence of the Criminal Justice Act of 1964, it can be difficult "for some parties—particularly indigent criminal defendants—to obtain" expert assistance. Jack B. Weinstein, Science, and the Challenge of Expert Testimony in the Courtoom, 77 OR. L. REV. 1005, 1008 (1998); see 18 U.S.C. § 3006A (2000) (codifying Criminal Justice Act of 1964).
the Daubert Court to preclude the admission of and reliance on erroneous science are likely to fail and faulty or overstated science is likely to infect the indigent criminal defendant’s trial.

VI. The Equality Principle Revisited: If the Prosecution is Proffering an Expert Pursuant to Daubert, I am Asking for an Expert Under Ake!

A. Assisting the Gatekeeper: Why the Daubert Hearing Implicates the Ake Principle

In 1999, the Innocence Project reconstructed sixty-two cases in the United States of the sixty-seven exonerations in North America to determine what factors had been prevalent in the wrongful convictions. A third involved tainted or fraudulent science.254

Under the Daubert standard, the trial judge needs to understand the methodology that undergirds the proffered expert’s opinion.255 As noted by Chief Justice Rehnquist in his partial concurrence and dissent, however, judges are not scientists.256 A trial judge is unlikely to have the basic knowledge necessary to determine whether a particular expert’s testimony passes the Daubert standard.257 Thus, the Daubert standard requires that the party offering the expert and the party objecting to the expert are well educated on the subject matter at issue and able to educate the trial judge on the underlying subject matter so that the trial judge can determine properly the admissibility of the proffered testimony.

When the prosecution seeks to introduce expert testimony, the trial court normally will hold a Daubert hearing.258 During the Daubert hearing, the parties

255. See Sapir & Giangrande, supra note 237, at 15 (noting that Daubert "heightened the need for judicial awareness of scientific reasoning and methods"). Compare this observation to the Frye standard. Under Frye, the trial judge "need not understand any of the science; he or she must merely identify the pertinent field in which the science falls and survey the opinions of scientists in that field." FAIGMAN, supra note 182, at 62.
256. Daubert, 509 U.S. at 600-01 (Rehnquist, C.J., concurring in part and dissenting in part).
257. See FAIGMAN, supra note 182, at 64 (acknowledging that "it might very well be true that judges today are not well trained to evaluate science"). Cf. Jasanoff, supra note 170, at 5 ("Lacking adequately trained gatekeepers, the legal system allows itself, in the view of some critics, to be swamped by 'junk science'.")
258. See Thomas F. Liotti, Evidentiary Voir Dire, THE CHAMPION, May 2002, at 26, 27-28 (describing Daubert hearing and presenting defense counsel with tips for successful handling of prosecution experts); see also JASANOFF, supra note 170, at 58 (discussing process of admitting expert testimony). Because the rules in most jurisdictions require the party proffering an expert witness to provide her opponent with a written summary of the expert’s opinions, the basis for these opinions, any available reports, and other materials, the lawyer seeking to preclude the admission of the expert is able to review the findings of her opponent’s expert, thereby preventing trial by
for both sides question the proffered expert.\textsuperscript{259} In addition, the party opposed to the admission of the proffered expert's testimony may present expert testimony of its own.\textsuperscript{260} The purpose of this hearing is to provide the trial court with the knowledge it needs to determine whether the proffered expert's testimony is admissible.

To cross-examine properly an expert proffered by the prosecution, defense counsel will need to be well educated on the underlying technical subject matter at issue.\textsuperscript{261} Most lawyers, however—similar to most judges—are not scientists and, therefore, lack the requisite scientific training or knowledge to cross-examine adequately the prosecution's proffered expert witnesses.\textsuperscript{262} Moreover, unlike her civil counterpart, the criminal defense lawyer often is unable to hire an expert witness to educate her on the science that her adversary is seeking to persuade the court to admit.\textsuperscript{263} Understandably, defense attorneys, hobbled by a lack of expert consultation, “rarely do more than minimally review the qualifications of the expert and verify the facts on which the expert's conclusions are based.”\textsuperscript{264} Of course, the wealthier criminal defendant suffers from no similar monetary constraints and is able to retain the type of expert services envisioned by the Daubert Court.\textsuperscript{265} A defense attorney representing a wealthier client, therefore, is able to submit the prosecution's proffered scientific evidence to the crucible of cross-examination envisioned by the Daubert Court.

Although this potential for a lack of adversarial testing based on the wealth of the criminal defendant was unfortunate under the Frye regime, it is simply intolerable under Daubert. In fact, it “is a misfit in a country dedicated to afford-
ing equal justice to all and special privileges to none in the administration of its criminal law." Absent the adversarial testing assumed by Daubert, the Daubert standard collapses and fails. The prosecution, supported by state-sponsored expert witnesses, is able to present the trial court with a one-sided case for admission. The defense attorney representing an indigent client is left to prepare for the Daubert hearing by reading any available texts and reviewing the materials provided by the prosecution through discovery—materials that may be incomprehensible or of little value to a lawyer without a scientific background. Lacking training in the relevant science, the trial judge as amateur scientist, therefore, is presented only with the case for admission. The crucible of the court envisioned by the Daubert majority becomes, in fact, a meaningless safeguard for the indigent criminal defendant.

Scholars note that judges routinely admit prosecution expert testimony that, had it been properly subjected to adversarial testing, likely would have failed Daubert. Unfortunately, this practice has been documented in capital cases. Nevertheless, trial judges routinely deny lawyers' requests for expert services. Presumably, such judges rely on defense counsel's ability to challenge adequately the prosecution's proffer through cross-examination. An uninformed cross-examination of a proffered expert, however, is not sufficient for the Daubert

266. Griffin, 351 U.S. at 19.
267. The likelihood of tainted science slipping past the gatekeeper is increased by the fact that "[t]oo many experts in the criminal justice system manifest a police-prosecution bias," and because "many prosecutors seek out such [biased] experts." Paul C. Giannelli, The Abuse of Scientific Evidence in Criminal Cases: The Need for Independent Crime Laboratories, 4 VA. J. SOC. POL'y & L. 439, 441 (1997) [hereinafter Giannelli, Crime Laboratories]; see also Sapir & Giangrande, supra note 237, at 36 (discussing bias of prosecution expert witnesses).
268. See Daubert, 509 U.S. at 595-96.
269. See Giannelli, Crime Laboratories, supra note 267, at 442-50 (discussing expert testimony admitted in criminal cases that courts should have deemed inadmissible under Daubert); cf Robin Mejia & Ian Sample, Bite the Bullet, NEWScientist, April 20, 2002, at 4 (discussing recent study that concluded that chemical matching of ballistics, a practice long considered reliable and admissible under Daubert, is faulty and likely has led to numerous erroneous convictions).
270. See SCHECK, ET AL., supra note 254, at 158-71 (discussing "junk science" that has tainted capital convictions); Giannelli, Civil and Criminal, supra note 241, at 112-17 (discussing "unvalidated expert testimony" that has led to capital convictions); see also Chris Adams, Death Watch: 100th Death Row Exoneration, THE CHAMPION, June 2002, at 10 (describing case of Ray Krone, sentenced to death based on unchallenged testimony of "bite mark expert"; DNA evidence later exonerated him).

Fortunately, the news is not all bad: many creative defense attorneys are using Daubert to force judges to reconsider the admissibility of forensic evidence that courts have long deemed admissible. See infra note 304 and accompanying text.
271. See Giannelli, Civil and Criminal, supra note 241, at 111 (setting forth findings of studies that analyzed judges' granting of expert assistance to criminal defense lawyers representing indigent defendants).
standard to function properly.272 Simply put, a lack of adversarial testing at the *Daubert* hearing risks turning the indigent defendant’s day in court into “a meaningless ritual.”273

The Constitution’s equality principle, however, mandates that the government take affirmative steps to minimize the disparity of resources facing indigent criminal defendants whose poverty merely has limited— as opposed to prohibited absolutely— their ability to present claims and defenses.274 Thus, although the lack of expert consultation does not preclude absolutely the indigent defendant from mounting a challenge to the prosecution’s proffered testimony, it does limit the effectiveness of any challenge.275 To paraphrase the *Douglas* opinion: there is lacking that equality demanded by the Fourteenth Amendment where the rich man enjoys the benefit of the expert consultant’s examination into the prosecution’s experts’ materials, research into the proffered science, and marshalling of arguments on his behalf, while the indigent defendant’s lawyer is forced to sift through unfamiliar scientific materials for himself.276 Although the equality principle does not require the government “to place the poor on the same level as those who can afford the best [expert assistance] available,”277 it does require the government to take affirmative steps to alleviate the grossest effects of the defendant’s poverty. As noted by Professor Bailey, “[B]ecause *Ake’s* roots are based in fundamental fairness and equal protection, an indigent is entitled to an adequate opportunity to present his claims fairly within the adversary system and an opportunity to secure the basic tools of an adequate defense.”278 The *Daubert* standard, premised on parity of resources between litigants and based on a model of adversarial testing, simply does not function properly when one party to the litigation possesses vastly superior resources. *Daubert*, therefore, serves to highlight the central premise of the equality principle: the American system of justice is offended when a defendant, merely because of her indigency, is unable

272. See Bennett, *supra* note 150, at 124 (noting that “far too many courts have focused . . . on the defense counsel’s cross-examination of the prosecution’s expert witness as a substitute for the defense receiving the use of its own expert . . . . [Too few] courts seem to read *Ake* generously in the area of providing . . . experts to help [defense counsel] prepare for cross-examination”).


274. See *supra* notes 40-44 and accompanying text.


276. *Id.* at 357-58 (“There is lacking that equality demanded by the Fourteenth Amendment where the rich man, who appeals as of right, enjoys the benefit of counsel’s examination into the record, research of the law, and marshalling of arguments on his behalf, while the indigent . . . is forced to shift for himself.”). A similar result could be reached in the federal system pursuant to the Fifth Amendment. See *Bolling v. Sharpe*, 347 U.S. 497, 498-50 (1954).

277. *Douglas*, 372 U.S. at 362-63 (Harlan, J., dissenting); see also *Ross*, 417 U.S. at 609; *supra* notes 44-54 and accompanying text.

278. Bailey, *supra* note 5, at 404 (internal quotations, citations, and bracketed material omitted).
to present fully her case within the adversarial process.\textsuperscript{279}

\textit{Ake} establishes the fact that when an indigent criminal defendant is able to make a "threshold showing" that expert assistance would materially assist her in the preparation of her defense and that the denial of such services would result in a fundamentally unfair trial, the Constitution requires that a trial court appoint such an expert.\textsuperscript{280} Courts require a defendant seeking an \textit{Ake} expert to make a threshold showing that the need for the requested expert is more than merely hypothetical;\textsuperscript{281} courts reject defendants' requests for an \textit{Ake} expert when the defendant is unable to present anything other than generalized assertions that expert assistance would be helpful.\textsuperscript{282} Once the adversarial foundations of the \textit{Daubert} standard are understood and the assumptions of the \textit{Daubert} majority are made clear, however, defense counsel can more easily surmount the "threshold showing" required by \textit{Ake} and obtain the necessary experts to challenge the prosecution's experts and their underlying science.\textsuperscript{283}

If the expert testimony being proffered by the prosecution is anything other than routine, the defense lawyer and the judge are unlikely to possess a working knowledge of the rationale undergirding the proffered testimony, let alone the ability to determine "whether the reasoning or methodology underlying the testimony is scientifically valid," and "whether that reasoning or methodology properly can be applied to the facts in issue" in the particular case.\textsuperscript{284} The prosecution, however, through its "access to the services of state, county, or metropolitan crime laboratories" will, of course, have ample access to expert assistance.\textsuperscript{285} Hence, the gatekeeper will be presented only with the case for admission. The \textit{Daubert} standard, premised on adversarial testing and presentation of contrary views, does not function properly when only one player in the criminal litigation has access to the specialized knowledge that the \textit{Daubert} standard requires. Because of this necessity for the presentation of contrary views, the need for the requested \textit{Ake} expert is, therefore, absolutely not "hypothetical"; rather, the requested \textit{Ake} expert is critical to a proper application of the

\begin{itemize}
  \item \textsuperscript{279} See \textit{Ake}, 470 U.S. at 77; \textit{Douglas}, 372 U.S. at 358; \textit{Griffia}, 351 U.S. at 19.
  \item \textsuperscript{280} See \textit{Ake}, 470 U.S. at 82-83.
  \item \textsuperscript{281} See \textit{summa} notes 143-148 and accompanying text (summarizing lower courts' treatment of \textit{Ake}'s "threshold showing" requirement).
  \item \textsuperscript{283} Gianneli & Inwinkelried, \textit{Fallout from Kumho, supra} note 4, at 12, 19 (stating that \textit{Daubert/Kumho} standard "should also affect motions for defense experts under \textit{Ake}").
  \item \textsuperscript{284} \textit{Daubert}, 509 U.S. at 592-93.
  \item \textsuperscript{285} Gianneli, \textit{Civil and Criminal, supra} note 241, at 110.
\end{itemize}
Daubert standard. Thus, once the trial court properly understands that the Daubert standard is premised on parity of resources and the presentation of contrary views, the indigent criminal defendant faced with a prosecution-initiated Daubert hearing can show more easily the requisite "reasonable probability" that an Ake expert would aid in her defense;\textsuperscript{286} in fact, once the trial court understands the fundamental assumptions implicit in Daubert, the defendant can show that Daubert requires that the trial court as gatekeeper have before it any competing views.\textsuperscript{287}

When the prosecution seeks to admit expert testimony and triggers the Daubert hearing, the Ake decision—premised on enabling all criminal defendants to defend themselves within the confines of the adversarial system—suggests that the trial court provide defense counsel with an expert to interpret the findings of the government's expert witness and to aid defense counsel in the preparation of the cross-examination of the prosecution's witness. This expert as trial shield will educate defense counsel on the prosecution expert's underlying science, will assist defense counsel in preparing the "vigorous" cross-examination envisioned by Daubert, and, if need be, will testify and provide the "contrary" views envisioned by the Daubert majority.\textsuperscript{288} A full and proper vetting of the prosecution's expert by a defense lawyer assisted by an expert consultant will allow the trial court to become the well-educated gatekeeper that is crucial for a proper functioning of Daubert. The failure to appoint such an expert, however, will result in the preclusion of the adversarial testing upon which the Daubert standard is based, thus rendering the judge's role as gatekeeper a nullity.

\textbf{B. Slipping Past the Gate:}

\textit{The Ake Expert and the Daubert Jury}

"Now the important thing and the only important thing to notice is that the expert has taken the jury's place if they believe him."\textsuperscript{289}

\begin{footnotesize}
\begin{enumerate}
\item[	extsuperscript{286}.] See supra notes 143-148 and accompanying text.
\item[	extsuperscript{287}.] It also illustrates the probable value of the additional safeguard; absent a defense viewpoint at the Daubert admissibility hearing, the gatekeeper will have before it incomplete and biased materials. See Ake, 470 U.S. at 77 (citing Matthews v. Eldridge, 424 U.S. 319 (1976)); see also Giannelli, Crime Laboratories, supra note 267, at 441 (arguing that "[t]oo many experts in the criminal justice system manifest a police-prosecution bias"); Harris, Truth Seeking, supra note 48, at 513 (setting forth studies and noting that "[w]hile crime laboratories may carry the government's imprimatur, they can and do produce flawed results"); Sapir & Giangrande, supra note 237, at 36 (discussing bias of government witnesses).
\item[	extsuperscript{288}.] See Daubert, 509 U.S. at 596; see also Bailey, supra note 5, at 441 (discussing Ake expert as trial shield).
\item[	extsuperscript{289}.] Learned Hand, Historical and Practical Considerations Regarding Expert Testimony, 15 HARV. L. REV. 40, 52 (1901).
\end{enumerate}
\end{footnotesize}
As noted above in Part V, the Daubert Court recognized that erroneous or shaky science will occasionally slip past the trial judge as gatekeeper and make its way to the jury.\(^{290}\) The Daubert Court, therefore, expected the jury system to act as the gatekeeper’s backup and reject such faulty science; the Court assumed that the party who failed to preclude the admission of the testimony at the Daubert hearing would present the jury with sufficient evidence to allow it to discredit and reject the “shaky” but admitted testimony.\(^{291}\) Implicit in Daubert’s reliance on the jury as corrector of the gatekeeper is the notion that the party who lost on admissibility will have access to the assistance that will enable it to assist the jury in rejecting shaky or erroneous science.

Again, the Daubert Court’s reliance on the jury system was understandable in the context of the civil system in which the Court announced its standard; the typical civil attorney has access to expert witnesses and consultation.\(^{292}\) As the Ake decision made apparent, however, the typical indigent criminal defendant does not have access to the very mechanism the Daubert Court relied on when it lauded the “capabilities of the jury.”\(^{293}\) Simply put, due to lack of access to expert consultation, the testing of the prosecution’s experts in front of the jury does not often take place in the world of indigent criminal defense.\(^{294}\) This testing is

290. Daubert, 509 U.S. at 596; see also supra notes 230-253 and accompanying text. Bad science might slip by the gatekeeper because the judge came to an erroneous conclusion at the Daubert hearing. See JASANOFF, supra note 170, at 5 (“Lacking adequately trained gatekeepers, the legal system allows itself, in the view of some critics, to be swamped by ‘junk science.’”). Moreover, the Daubert opinion implied that even if the trial court comes to the “correct” determination regarding the proffered testimony’s admissibility at the Daubert hearing, the science nevertheless may be erroneous or faulty. In other words, some borderline, shaky, or even erroneous science passes the Daubert standard and should, therefore, be admitted for the jury’s consideration. See Daubert, 509 U.S. at 596.

291. See Daubert, 509 U.S. at 596; cf. Vigilante, supra note 7, at 580-82 (recognizing that expert testimony is crucial if jury is to come to correct understanding of scientific issues).

292. See supra notes 248-252 and accompanying text. In fact, the civil attorney’s very access to expert witnesses might constitute a problem with the Daubert Court’s reliance on the jury system to reject erroneous science. Pundits argue that in the civil context, expert witnesses are merely “hired guns” — well-spoken, well-credentialed individuals who can pass off erroneous science as accurate before a jury composed of lay people. See Giannelli, Civil and Criminal, supra note 241, at 117; see also JASANOFF, supra note 170, at 5 (noting that parties to civil litigation often hire experts who present “extreme and unrepresentative opinions about the technical issues at stake”); Vigilante, supra note 7, at 555-56 (lamenting that “hired gun” testimony can negatively affect the outcome of jury deliberations).

293. See Daubert, 509 U.S. at 596 (rejecting concerns of amici and respondent Merrell Dow and noting that “respondent seems to us to be overly pessimistic about the capabilities of the jury and of the adversary system generally”).

294. See, e.g., JOHN C. TUCKER, MAY GOD HAVE MERCY: A TRUE STORY OF CRIME AND PUNISHMENT 75-77 (1997) (describing perfunctory cross-examination of prosecution expert in capital murder case). In the case analyzed by Tucker, the court-appointed defense lawyer “did not talk to any hair expert, or have any of [the prosecution expert’s] results checked by another expert.
precisely what the Daubert Court relied upon to guard against bad science tainting the legal process.

Moreover, research suggests that when confronted with complex, technical testimony, the average jury is usually "willing to defer to the guidance of a testifying expert." If, however, only one side of the litigation is able to retain expert assistance, the jury will have only one expert opinion to which it can defer. The jury, therefore, will lack the knowledge and information required to make rational and reasoned determinations regarding expert testimony and the Daubert Court's reliance on the jury as a fail-safe mechanism to prevent shaky, erroneous, or overstated science from tainting the legal process will be proven unfounded.

As is true in the Daubert hearing, however, the equality principle and the Ake doctrine provide a framework for rectifying this imbalance. The Ake expert as trial shield can assist the indigent defendant's lawyer in preparing an adequate cross-examination and can allow the assumptions of the Daubert Court to become a reality. This expert can interpret the testimony of the prosecution's expert, can point out any flaws in the expert's testimony, and can empower the indigent defendant's lawyer to conduct the type of vigorous cross-examination the Daubert Court assumed would transpire. Thus, even if the gatekeeper admits the shaky or faulty testimony—as the Daubert Court admitted it occasionally would—the Daubert Court's reliance on the jury as the gatekeeper's corrector and rejecter of bad science will be realized.

Junk science is not the only concern. Much prosecution expert testimony is based on "good science." DNA evidence for instance, although generally recognized to be accurate in theory, can be overstated by a prosecution expert, especially when one concedes that "many experts in the criminal justice system manifest a police-prosecution bias." The unrebuted testimony of a prosecution expert that a DNA sample "matches" a particular defendant needs to be

His preparation for the cross-examination of [the prosecution expert witness] on the crucial hair and blood testimony was to read articles about hair and blood evidence. Id. at 77; see also Sapir & Giangrande, supra note 237, at 34 (describing superficial cross-examinations of prosecution experts conducted by defense lawyers).

295. Vigilante, supra note 7, at 554.

296. Moreover, when the defense fails to challenge adequately the prosecution expert's testimony, the jury may "assume that the defense does not care to contest that part of the state's case .... Worse still, the jury may assume that the defense did have its own evidence on the issue but declined to present it because it supported the state, not the defendant." Harris, Truth Seeking, supra note 48, at 502. In other words, the jury will penalize the indigent defendant for failing to present a challenge that she was financially unable to mount.

297. See Daubert, 509 U.S. at 596.

298. See supra notes 102-107 and accompanying text (discussing Ake expert as trial shield).

299. Giannelli, Crime Laboratories, supra note 267, at 441.
placed in its proper perspective. In addition, although the general scientific theory being employed by the government’s expert may be accurate, the expert may have employed it in an incorrect or sloppy fashion; even an expert acting in good faith pursuant to "good" science may produce flawed results. At bottom, regardless of which party is proffering the evidence, a jury "should view scientific evidence with skepticism." Absent the presentation of the "contrary evidence" assumed by the Daubert Court, however, the jury will not be empowered to view expert testimony with this requisite critical eye. In other words, without the adversarial testing envisioned by the Daubert Court, the jury will have little choice but to accept overstated or flawed scientific testimony as fact.

Absent an *Ake* expert, the vigorous cross-examination and presentation of contrary views envisioned by the Daubert Court simply will not occur. Absent the vigorous cross-examination of the prosecution's experts, the jury will be presented with a one-sided case as to the accuracy of scientific evidence—a result highly conducive to a guilty verdict. Absent the presentation of contrary evidence, the jury is likely to accept the prosecution expert's testimony wholesale. The prosecution's expert—unchallenged and unopposed—will have taken the jury’s place as factfinder.

**VII. Conclusion**

The Daubert standard can actually be a boon to the criminal defense lawyer provided with the correct resources. Creative defense attorneys are using Daubert to force judges to reconsider the admissibility of evidence long deemed admissible. The Daubert Court, by removing from the scientific community the ability to deem scientific and technical evidence admissible or inadmissible and placing the ultimate admissibility determination in the hands of the legal profession, has provided defense attorneys with a wonderful opportunity to challenge forensic, scientific, and technical evidence that has gained general acceptance and has long been considered admissible in criminal courtrooms.

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300. *See* Harris, *Truth Seeking* supra note 48, at 513 (noting that "[w]hile crime laboratories may carry the government's imprimatur, they can and do produce flawed results"); Sapir & Giangrande, *supra* note 237, at 34 n.203 (setting forth findings of studies revealing that government crime laboratories frequently conduct inadequate and erroneous forensic work).

301. *Harris, Truth Seeking,* supra note 48, at 513.

302. *See* Daubert, 509 U.S. at 596.

303. *See* Hand, *supra* note 289, at 52 (warning lawyers that unrebutted expert witness can usurp jury's role as factfinder); *Vigilante, supra* note 7, at 591 (noting that "[d]ue to the complexity of their testimony and status as 'experts'... [an expert witness] can often usurp the fact finding role of the jury").

304. *See* Giannelli & Imwinkelried, *Fallout from Kumho,* supra note 4, at 15-18 (discussing defense attorneys' recent Daubert challenges to prosecution expert testimony regarding handwriting
Many lawyers representing indigent defendants are able to secure adequate expert assistance; in the federal courts, the Criminal Justice Act of 1964 has made expert assistance a reality for federal public defenders and federal panel attorneys. Moreover, some state statutory schemes provide adequate expert services for indigent defendants. In addition, some state legislatures allow the various public defender agencies themselves to administer funds and determine when expert assistance will be used. Furthermore, some trial judges are willing to appoint expert assistance to indigent defendants, whether pursuant to Ake or to a statutory scheme. Defendants prosecuted in such courts are able to subject the prosecution's experts to the crucible of adversarial testing assessed comparisons, hair comparisons, firearm identifications, and bite-mark identifications; see also William A. Tobin & Wayne Duerfeldt, How Probative is Comparative Bullet Lead Analysis?, CRIM. JUST., Fall 2002, at 26, 29-30 (discussing recent Daubert challenges to comparative bullet lead analysis, a process long considered reliable). By way of example, within the last year defense attorneys have brought into question whether fingerprint evidence, long considered reliable and admissible, passes muster under Daubert. In fact, in United States v. Llera-Plaza, Judge Louis Pollak, United States District Court Judge for the Eastern District of Pennsylvania, agreed with defense counsel that the prosecution's proffered fingerprint evidence flunked the Daubert standard. See Adrian Cho, Fingerprinting Doesn't Hold Up as a Science in Court, 295 SCIENCE 418, 418 (2002) (discussing Llera-Plaza case). Judge Pollak, however, ultimately retracted his ruling. See United States v. Llera-Plaza, 188 F. Supp. 2d 549, 575-76 (E.D. Pa. 2002) (retracting earlier opinion and holding that fingerprint evidence passes Daubert standard); see also Adrian Cho, Judge Reverses Decision on Fingerprint Evidence, 295 SCIENCE 2195, 2195-96 (2002). Nevertheless, the issue of the admissibility of fingerprint evidence under Daubert is not likely to go away anytime soon. See generally Robert Epstein, Fingerprints Meet Daubert: The Myth of Fingerprint "Science" is Revealed, 75 S. CAL. L. REV. 605 (2002) (arguing that fingerprint testimony does not pass Daubert standard and discussing recent court challenges mounted by defense lawyers).

305. See 18 U.S.C. § 3006A(a)(2000) (providing expert assistance for indigent criminal defendants in federal system). But see Weinstein, supra note 253, at 1008 (arguing that Criminal Justice Act sets monetary limits on defense expert remuneration that "must be increased if due process is to be afforded defendants"). See generally GIANNELLI & IMWINKELRIED, SCIENTIFIC EVIDENCE, supra note 103, at § 4-3 (analyzing terms and effectiveness of Criminal Justice Act); Bennett, supra note 150, at 126-32 (discussing whether Criminal Justice Act adequately secures expert assistance for indigent criminal defendants); Edward C. Prado, Process and Progress: Revisiting the Criminal Justice Act, LAW&CONTEMP. PROBS., Winter 1995, at 51 (discussing terms, background, and effectiveness of Criminal Justice Act).

306. See GIANNELLI & IMWINKELRIED, SCIENTIFIC EVIDENCE, supra note 103, at § 4-4 (analyzing state statutory schemes providing for expert assistance); Bennett, supra note 150, at 132-33 (discussing state statutes that provide indigent defendants with expert assistance).

307. See, e.g., Bryan L. Dupler, The Uncommon Law Insanity, Exactions, and Oklahoma Criminal Procedure, 55 OKLA. L. REV. 1, 35 (2002) (discussing Oklahoma statute that allows "public-defense agencies to administer the funds and make their own determinations of when expert... assistance will be used in a particular case"). See generally Bennett, supra note 150, at 132-33 (noting that some state legislatures permit public defender agencies to distribute expert funds, collecting statutes).

308. See Bennett, supra note 150, at 95-138 (analyzing indigent defendants' ability to secure expert assistance).
and required by Daubert, both at the initial admissibility hearing and before the jury.

Unfortunately, many defense lawyers lack access to such expert assistance.\(^{309}\) Such lawyers are unable to utilize the Daubert standard to mount the type of challenges noted above.\(^{310}\) More fundamentally, this lack of defense access to expert assistance enables government attorneys to introduce tainted expert testimony and to secure guilty verdicts based upon such faulty testimony. Unfortunately, failing to realize the assumptions of the Daubert Court, trial judges often refuse to appoint the expert assistance needed for a proper functioning of the liberalized Daubert standard.

Once the assumptions and adversarial foundations of the Daubert Court are understood, however, defense counsel can more easily surmount Ake’s threshold showing. A proper understanding of the right guaranteed by Ake, combined with a full understanding of the assumptions and requirements of the Daubert standard, can enable defense counsel to secure more easily the expert assistance that is required to ensure that the indigent defendant’s right to trial does not become a meaningless ritual.\(^ {311}\) A broader conception of the relationship between the Ake and Daubert cases will assist counsel in ensuring due process for all individuals accused of crimes, regardless of such individuals’ wealth or poverty.

\(^{309}\) See Giannelli, Civil and Criminal, supra note 241, at 111 (setting forth findings of several studies that analyzed indigent defense counsels’ ability to retain state-funded expert assistance); Harris, Ake Revisited, supra note 84, at 780 (commenting that many indigent defendants lack adequate access to expert assistance); Vick, supra note 251, at 391-94 (outlining indigent defender services’ lack of access to expert consultation and witnesses).

\(^{310}\) See supra note 304. Moreover, some judges, when presented with a prosecution proffer of technical or scientific testimony, fail to conduct a Daubert hearing and rely instead on precedent. See Shuman, supra note 243, at 282-83 (noting that some courts rely on precedent, rather than vigorous application of Daubert standard, when analyzing admissibility of expert testimony proffered by prosecution).

\(^{311}\) Douglas, 372 U.S. at 358.