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Neuroimaging and Competency to Be Executed after Panetti

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Introduction

Scholars have begun to consider the impact of neuroimaging evidence on capital punishment trials, questioning whether reliance on such testimony can actually make “sentencing more rational and humane.”¹ They have also considered the impact of this evidence on criminal sentencing, expressing concern that such evidence will be improperly used “as predictive factors to increase sentences,” and counseling policymakers to “avoid misuse of new techniques.”² In earlier articles on neuroimaging and criminal procedure, I considered (1) the questions of a criminal defendant’s competency to submit to neuroimaging testing, and the impact of antipsychotic medications on the results of such testing,³ and (2) the likely impact of neuroimaging testimony on juror attitudes in insanity defense cases (where jurors are likely to be highly suspicious of the defendant’s “story”).⁴


What has not yet been considered, to the best of my knowledge, is the potential significance of such evidence on an issue that combines aspects of these inquiries from one singular perspective: its potential impact on cases determining whether a seriously mentally disabled death row defendant is competent to be executed.

In *Panetti v. Quartermann*[^5] the Supreme Court ruled that such a defendant had a constitutional right to make a showing that his mental illness “obstruct(ed) a rational understanding of the State’s reason for his execution,”[^6] expanding its jurisprudence in this area beyond its earlier decision in *Ford v. Wainwright*[^7] that had regularly be interpreted to require that competency-to-be-executed depended only on three findings: that the prisoner is aware he committed the murders, that he is going to be executed, and he is aware of the reasons the State has given for his execution.[^8]

Although it is too early to come to any definitive conclusions as to the “real life” implementation of *Panetti*, we know that prior to *Panetti*, in many cases


[^6]: *Id.* at 2860. See infra Part II.


jurisdictions, implementation of Ford was simply nonexistent, suggesting that fact-finders were utterly disinterested in the testimony presented at hearings designed to thwart execution in cases where it was alleged that the defendant did not meet the Ford standard. Few of these cases considered neuroimaging testimony at all.  

Contrarily, Panetti suggests that competency-to-be-executed hearings may necessarily have to become more sophisticated and complex, especially in light of the other Panetti holding that the trial court’s failure to provide the defendant an adequate opportunity to submit expert evidence

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9Panetti’s lawyers told the Supreme Court in their petition for certiorari that two decades had passed since Ford was decided, and the Fifth Circuit had yet to find a single death row inmate incompetent to be executed. During this same period, the State of Texas executed 360 people. Panetti v. Quarterman, 2006 WL 3880284, *26 (2006) (appellant’s petition for certiorari).

In other areas of the law, the Supreme Court has considered the (lack of) value of a “paper”remedy that had never been invoked. See Michael L. Perlin, Pretexts and Mental Disability Law: The Case of Competency, 47 U.MIAMI L. REV. 625, 634 (1993), discussing Fuentes v. Shevin, 407 U.S. 67, 85 n.14 (1972) (provision of a discovery mechanism not invoked by a single defendant in a 442-case sample). Although this aspect of Panetti’ certiorari petition is never directly addressed in the majority’s opinion, it is certainly reasonable to speculate that this sorry “track record” might have had some impact on the Court’s thinking.

in response to the report filed by the court-appointed experts,\(^1\) deprived him of his “constitutionally adequate opportunity to be heard.”\(^2\) This also leads to the question that I hope to explore in this article: what impact will neuroimaging testimony have on future *Panetti* hearings?

This question subsumes multiple sub-questions:

- Will defense counsel seek to introduce such testimony, and what, exactly, can we expect such testimony will say?

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\(^1\) *Panetti*, 127 S. Ct. at 2857.

\(^2\) *Id.* at 2858. The fact-finding procedures on which the trial court relied, it concluded, were “not adequate for reaching reasonably correct results’ or, at a minimum, resulted in a process that appeared to be ‘seriously inadequate for the ascertainment of the truth.’” *Id.* at 2859, quoting, in part, *Ford*, 477 U.S., at 423-24 (Powell, J., concurring in part and concurring in judgment) (internal quotation marks omitted).
• In cases involving indigent defendants, will *Ake v. Oklahoma*\textsuperscript{13} be interpreted expansively or restrictively?\textsuperscript{14}

• Will prosecutors seek to introduce such testimony to rebut defendant’s *Panetti* applications?

• To what extent are judges more or less impervious to the “dazzle” or “Christmas tree effect” of such testimony than are jurors?\textsuperscript{15}

• How will such testimony be dealt with if there is a *Daubert* challenge?\textsuperscript{16}

• How will fact-finders deal with such testimony in cases where the evidence revealed by neuroimaging testimony does not comport with their (false) “ordinary common sense” view of “crazy” criminal defendants?\textsuperscript{17}

• How will the less well-known aspect of *Panetti* (that which deals with the need for additional expert testimony) be treated in such cases?

\textsuperscript{13}470 U.S. 68, 74 (1985) (indigent defendant’s right to insanity defense expert).

\textsuperscript{14}I address this generally in a neuroimaging context in Perlin, *supra* note 3.

\textsuperscript{15}I discuss juror response to such testimony in insanity defense cases in. Perlin, *supra* note 4.

\textsuperscript{16}See *Daubert v. Merrill Dow Pharmaceuticals Inc*, 509 U.S. 579 (1993) (in determining whether to admit scientific evidence, must consider three factors: (1) the reliability, (2) the relevancy, and (3) the possible prejudicial nature of the evidence).

\textsuperscript{17}Compare Michael L. Perlin, “*She Breaks Just Like a Little Girl : Neonaticide, The Insanity Defense, and the Irrelevance of Ordinary Common Sense*, 10 WM. & MARY J. WOMEN & L. 1(2003) (discussing “ordinary common sense” (OCS)).
• What, actually, will neuroimagers do in such cases?

I hope to offer preliminary answers to all these questions in this article. In Part I, I will briefly review attitudes that scholars have expressed about the use of neuroimaging in the courts in criminal cases. In Part II, I will briefly discuss the Panetti case. In Part III, I will seek to answer the questions I have just raised. In Part IV, I will offer some tentative conclusions.

I. Neuroimaging and the courts: an overview

A review of the literature on neuroimaging, predictably, reveals a broad array of positions, promises and prophecies. Carter Snead argues that the ambition of cognitive neuroscientists is “to use the claims of their discipline and the new powers conferred by neuroimaging to overthrow retributive justice as a legitimate justification for criminal sanctions.”18 Jonathan Marks quotes William Uttal’s warning that neuroimaging may be simply a “neo-phrenological fad.”19 David Eagleman claims that “There is a new potential to use detailed combinations of behavioral tests and

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18 Snead, supra note 1, at 1316.

neuroimaging to better predict recidivism.”\textsuperscript{20} Perhaps most emphatically, Bruce Arrigo levels this critique:

\begin{quote}
In short, the mass marketing and wholesale circulation of fMRI technology for medicolegal purposes endorses capitalist status quo dynamics and, as such, breeds, nurtures, and sustains the very structural inequalities (both social and psychological) that result in destructiveness, violence and crime. Indeed, through reliance on such cognitive neuroscience advances, it is assumed that the path to ‘correcting’ the ills of the individual are discoverable through reliance on the novel (though simulated or computer-generated) breakthroughs of science.\textsuperscript{21}
\end{quote}

In this paper, I do not take sides on this debate. I agree with Steven Erickson that “it is inescapable that the novel and powerful technology of


brain imaging... drives (neuroscientists’) conception of the mind.”22 Rather, I am writing about a related, but distinctly separate issue: what impact will this evidence have on a small, but powerfully important and vivid subset of cases – whether defendants sentenced to death are competent to be executed.23

I recently have looked at the way jurors were likely to construe neuroimaging evidence in *insanity defense* cases24 (another subset of criminal cases highly susceptible to the use and misuse of the vividness heuristic).25 I tried to balance jurors’ likely positive response to the perceived characteristics of this evidence -- vivid, objective, quantifiable, advanced26 -- with their likely negative response to the use of this evidence in such cases (reflecting their prejudice, hostility, and hatred toward insanity pleaders).27


23For a survey of the different diagnostic techniques that might be used in this context, see Bethany Bryant, *Expanding Atkins and Roper: a Diagnostic Approach to Excluding the Death Penalty as Punishment for Schizophrenic Offenders*, 78 Miss. L.J. 905, 924-25 (2009).


25See e.g., Perlin, *supra*, note 17, at 4.

26*Id.* at 890 (“this language jumps off the page”).

27*See generally*, MICHAEL L. PERLIN, *THE JURISPRUDENCE OF THE INSANITY DEFENSE* (1994). See also, e.g., Perlin, supra note 17, at 10 n.54, discussing JUDITH S. NEAMAN, *SUGGESTION OF THE DEVIL: THE ORIGINS OF MADNESS* 31, 144 (1975) (addressing the stereotype of persons with mental illness as evil); Michael L. Perlin, “*There Was an Evil Messenger*”: *Blame, Mental Illness, Wickedness, the Insanity Defense and the Pretexts of the Justice System* (paper presented
and concluded that I was “not at all sure that the pizzazz of neuroimaging testimony -- not withstanding its colorfulness and its propensity to reductionism -- will trump these deep-seated attitudes.” In short, I sought to make the point that the science of neuroscience has to be assessed in the sociopolitical context of the specific question of law that is central to the specific case before the court.

Again, as I stressed in the earlier article, the reality is that neuroimaging is “fraught with uncertainties,” that the steps used in the production and presentation of neuroimaging evidence are “not only... not standardized, they are easily manipulated by a person with the knowledge of the technology.” Some researchers characterize it as “indistinct.” Amanda Pustilnik, by way of example, concludes, “neuroscience cannot provide complete, or even sufficient, explanations of criminal violence by reference at 30th Annual Congress, International Academy of Law and Mental Health, Padua, Italy, June 2007) (same);, Michael L. Perlin, Unpacking the Myths: The Symbolism Mythology of Insanity Defense Jurisprudence, 40 CASE W. RES. L. REV. 599, 626 (1989-90)(“[historically], mental illness was tied to notions of religion and traditionally seen as God's punishment for sin”).

28See Perlin, supra note 4, at 911.


primarily to purported neurobiological dysfunctions within isolated parts of offenders’ brains.” Other scholars charge that “researchers, clinicians, and lawyers are seduced into becoming true believers in the merits of (brain imaging) for understanding the relationship between brain and behavior.” Stacey Tovino argues that the fMRI offers only “an illusory accuracy and objectivity.” But what is clear is that the existence of neuroimaging techniques has changed the contours of the playing field, and no matter on which side of the divide we find ourselves, we must acknowledge that reality.

II. Panetti

In 1986, in the case of Ford v. Wainwright, a sharply-fractured Supreme Court held that the Eighth Amendment prohibited the imposition of


35See e.g. Erickson, supra note 21, manuscript at 2 (“The impact of neuroscience on the law in the coming years will be inevitable, dramatic, and will fundamentally alter the way the law does business”) (emphasis added).

the death penalty on an insane prisoner. On the question of what procedures were appropriate in such a case, the Court was sufficiently fragmented that no opinion commanded a majority of justices. In a four-Justice opinion, Justice Marshall concluded that the ascertainment of a prisoner’s sanity “as a lawful predicate to execution calls for no less stringent standards than those demanded in any other aspect of a capital proceeding,” a standard particularly demanding in light of the reality that “the present state of the mental sciences is at best a hazardous guess however conscientious.”

Ford was interpreted narrowly, the lower courts regularly finding that competency is determined was to be determined solely by an inquiry into whether a prisoner is aware “ ‘that he (is) going to be executed and why he (is) going to be executed.’ Certiorari was granted in the Panetti case – at least in part – to clarify the Ford ruling.

37 Id. at 405-10.

38 Id. at 411-12.

39 Solesbee, 339 U.S. 339 U.S. 9, 23 (1950) (Frankfurter, J., dissenting). See also O’Connor v. Donaldson, 422 U.S. 563, 584 (1975) (Burger, C.J., concurring) (“there are many forms of mental illness that are not understood”); Addington v. Texas, 441 U.S. 418, 429 (1979) (“Given the lack of certainty and the fallibility of psychiatric diagnosis, there is a serious question as to whether a state could ever prove beyond a reasonable doubt that an individual is both mentally ill and likely to be dangerous”).

40 Panetti, 448 F.3d, at 819; see also id. at 818 (discussing Ford, 477 U.S., at 421-422 (Powell, J., concurring in part and concurring in judgment)).
Panetti, who had been convicted of capital murder in the slayings of his estranged wife’s parents, had been hospitalized numerous times for serious psychiatric disorders.\textsuperscript{41} Notwithstanding his “bizarre,” scary”, and “trance-like” behavior, he was found competent to stand trial and competent to waive counsel.\textsuperscript{42} He was convicted (the jury rejecting his insanity defense), and was sentenced to death.\textsuperscript{43} After his direct appeals and initial petition of habeas corpus were rejected,\textsuperscript{44} Panetti filed a subsequent habeas writ petition, alleging that he did not understand the reasons for his pending execution.\textsuperscript{45} This petition was rejected, the court concluding that the test for competency to be executed “requires the petitioner know no more than the fact of his impending execution and the factual predicate for the execution.”\textsuperscript{46} The Fifth Circuit affirmed,\textsuperscript{47} and the Supreme Court granted certiorari.\textsuperscript{48}

The Court reversed in a 5-4 decision, and in the course of its opinion,\textsuperscript{49} significantly elaborated on its \textit{Ford} opinion in two dimensions: as to the

\textsuperscript{41}Panetti, 127 S. Ct. at 2848.
\textsuperscript{43}Panetti, 127 S. Ct. at 2849.
\textsuperscript{44}Id.
\textsuperscript{45}Id.
\textsuperscript{47}Panetti v. Dretke, 448 F. 3d 815 (5th Cir. 2006).
\textsuperscript{49}In a jurisdictional ruling of great importance to death penalty litigation, the Court also found that the defendant’s claim was not barred by federal legislation that generally prohibited
procedures that are to be afforded to a defendant seeking to assert a *Ford* claim, and as to the substance of the *Ford* standard.

On the first matter, it found error below in the trial court’s failure to provide the defendant an adequate opportunity to submit expert evidence in response to the report filed by the court-appointed experts, thus depriving him of his “constitutionally adequate opportunity to be heard.”

On the second, it carefully elaborated on – and clarified – *Ford*. It reviewed the testimony that demonstrated the defendant’s “fixed delusion” system, and quoted with approval expert testimony that had pointed out “successive” habeas corpus applications. See *Panetti v. Quarterman*, 127 S. Ct. 2842, 2852-55 (2007). The significance of this portion of the opinion is beyond the scope of this paper.

Four expert witnesses testified on petitioner's behalf in the District Court proceedings. One explained that petitioner's mental problems are indicative of “schizo-affective disorder,” resulting in a “genuine delusion” involving his understanding of the reason for his execution. According to the expert, this delusion has recast petitioner's execution as “part of spiritual warfare ... between the demons and the forces of the darkness and God and the angels and the forces of light.” As a result, the expert explained, although petitioner claims to understand “that the state is saying that [it wishes] to execute him for
that “an unmedicated individual suffering from schizophrenia can ‘at times’ hold an ordinary conversation and that ‘it depends (whether the discussion concerns the individual’s) fixed delusional system’

54 Here, it rejected the Court of Appeals’ interpretation of the Ford standard – that competency-to-be-executed depends only on three findings: that the prisoner is aware he committed the murders, that he is going to be executed, and that he is aware of the reasons the State has given for his execution.

55 This narrow test, the Supreme Court concluded, unconstitutionally foreclosed the defendant from establishing incompetency by the means that Panetti sought to employ in the case at bar: by making a showing that his mental illness “obstruct(ed) a rational understanding of the State’s reason for his execution.”

56 The Fifth Circuit had squarely confronted this issue, and had found that “awareness” was “not necessarily synonymous with ‘rational understanding’”; the Supreme Court rejected this position, finding that it

\[\text{his murder[s],} \]

he believes in earnest that the stated reason is a “sham” and the State in truth wants to execute him “to stop him from preaching.” Petitioner’s other expert witnesses reached similar conclusions concerning the strength and sincerity of this “fixed delusion.”

(Citations to record omitted).

54Id. at 2860.

55Id. at 2860.

56Id., quoting Panetti, 448 F. 3d at 819.

57Panetti, 448 F. 3d at 817-18.
was “too restrictive to afford a prisoner the protections granted by the Eighth Amendment.”

In this case, the Court found, the Fifth Circuit improperly treated as irrelevant if the prisoner knows that the State has identified his crimes as the reason for his execution.” Nowhere, the Court continued, did Ford indicate that delusions are irrelevant to comprehension or awareness if they so impair the prisoner’s concept of reality that he cannot reach a rational understanding of the reason for the execution.” If anything, the court continued, “the Ford majority suggests the opposite.”

After quoting the “simply offends humanity” language from Ford, the Court focused on the reasons why executing an insane person “serves no retributive purpose”:

(l) might be said that capital punishment is imposed because it has the potential to make the offender recognize at last the gravity of his crime and to allow the community as a whole, including the surviving family and friends of the victim, to affirm its own judgment that the

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58 Panetti, 127 S. Ct. at 2860.
59 Panetti, 448 F. 3d at 817-18.
60 Id.
61 Id.
62 477 U.S. at 407-08.
63 Id. at 408.
culpability of the prisoner is so serious that the ultimate penalty must be sought and imposed. The potential for a prisoner’s recognition of the severity of the offense and the objective of community vindication are called in question, however, if the prisoner’s mental state is so distorted by a mental illness that his awareness of the crime and punishment has little or no relation to the understanding of those concepts shared by the community as a whole. This problem is not necessarily overcome once the test set forth by the Court of Appeals is met. And under a similar logic the other rationales set forth by Ford fail to align with the distinctions drawn by the Court of Appeals. 64

There was no support in Ford (“or anywhere else”), the Court added, for the proposition that “a prisoner is automatically foreclosed from demonstrating incompetency once a court has found he can identify the stated reason for his execution.” 65 Although it conceded that concepts such as “rational understanding” could be difficult to define, and that some might fail to be punished on account of “reasons other those stemming from a severe mental illness,” it concluded, on this point: “The beginning of doubt about competence in a case like petitioner’s is not a misanthropic personality

64Panetti, 127 S. Ct. at 2861.
65Id. at 2862.
or an amoral character. It is a psychotic disorder." In this case, it again underlined, it was the prisoner’s “severe, documented mental illness that is the source of gross delusions preventing him from comprehending the meaning and purpose of the punishment to which he has been sentenced.”

After coming to this conclusion, the Court added that it was not attempting to set out a rule to govern all competency determinations, and then remanded so that the “underpinnings of petitioner’s claims (could) be explained and evaluated in further detail on remand.” Among the questions it sought to be explored in greater depth was “the extent to which severe delusions may render a subject’s perception of reality so distorted that he should be deemed incompetent,” citing here to an aspect of the amicus brief by the American Psychological Association that had discussed ways in which mental health experts can inform competency determinations.

Panetti will be an enormously significant opinion with regard to the underlying issues for at least two reasons: it fleshes out the constitutionally-adequate procedural standards for making a determination on execution competency (by demanding that defendants have the opportunity to

66 Id.
67 Id.
68 Id. at 2863.
69 Id.
submit adequate expert evidence to respond to evidence on competency “solicited by the state court” as part of the defendant’s “constitutionally adequate opportunity to be heard”), and it clarifies *Ford* substantive test to demand that the prisoner possess a “rational understanding” of the reasons he is to be executed.

The Court’s opinion also expands the role of the expert witness in competency determinations. First, its procedural prong tells us that the trial court’s failure to allow the defendant to introduce evidence on this question was a failure of constitutional dimensions. Second, its conclusion’s citation to the American Psychological Association’s *amicus* brief (that had discussed the ways that experts can inform competency determinations) tells us that a majority of this Court (albeit a bare majority) is comfortable with (and responsive to) a greater role for mental health experts in judicial proceedings. We cannot underestimate the significance of this attitude.

Post-*Panetti* cases have not been enormously helpful. Few have discussed neuropsychological testing at all, and none have examined the questions I

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70 *Id.* at 2858.
71 *Id.* at 2860.
am raising in this paper in the context of the Panetti holding. On the other hand, several cases have underscored the fundamental difference between the Panetti holding and the Ford holding have considered the application of Panetti to claims brought under Atkins v. Virginia, and the application of


74 See e.g., Thompson v. Bell, – F. 3d –, 2009 WL 2901193, **7-8 (6th Cir. 2009) (noting that Panetti “clarifie[d]” Ford, and that the state court’s decision rejecting the defendant’s claim was “unreasonable” under Panetti).

75 536 U.S. 304 (2002) (defendant’s mental retardation barred the imposition of the death penalty); see Rivera v. Quarterman, 505 F. 3d 349, 358 (5th Cir. 2007) (“The lesson we draw from Panetti is that, where a petitioner has made a prima facie showing of retardation as Rivera did, the state court’s failure to provide him with the opportunity to develop his claim deprives the state court’s decision of the deference normally due”); see also, e.g., Hearn v. Quarterman, 2008 WL 679030, *3 (N.D. Tex. 2008):

Although the court finds that Hearn's counsel, through the exercise of due diligence and reasonable competence, could have concluded earlier than he did that evidence of Hearn's neuropsychological deficits and fetal alcohol syndrome might satisfy the “significant limitations in intellectual functioning” element of the mental retardation definition, and that his counsel could have secured supporting expert testimony before responding to the state's summary judgment motion, this factor is outweighed by the importance of the new evidence and the fact that the state is unlikely to suffer unfair prejudice as a result of granting the requested relief.

Hearn was subsequently supplemented in Hearn v. Quarterman, 2008 WL 3362041, *7 (N.D. Tex. 2008), finding that Hearn’s prima facie showing of mental retardation supported his conclusion that an Atkins claim was “potentially meritorious.”
the Panetti reasoning in non-death penalty cases to determinations of competency to be sentenced.\textsuperscript{76}

III. Questions to consider

This all leads to an examination of the questions I raised earlier: how will neuroimaging testimony be dealt with in post-Panetti cases? Again, to the best of my knowledge, this issue has not yet been raised in any reported case, but I believe that it is inevitable that the issue will be confronted by the courts in the near future. Let me review the questions that I raised at the beginning of this paper:

1. Will defense counsel seek to introduce such testimony, and what, exactly, can we expect such testimony will say?

My answer here is a qualified “maybe,” dependent on multiple interlocked variables:

\begin{itemize}
  \item Will courts be receptive to neuroimaging testimony that seeks to answer the specific substantive question posed by Panetti: did the defendant possess “a rational understanding of
\end{itemize}

\textsuperscript{76}See e.g., United States v. Wolfson, 616 F. Supp. 2d 398, 420 (S.D.N.Y. 2008):

The principles that the Court explained in Panetti spring from the Court's interpretation of “rational understanding” as applied to an execution for purposes of the Eighth Amendment. The same requirement of “rational understanding” applies to the determination of competence under the due process clause.
the State’s reason for his execution”?

Such testimony has been introduced – with mixed results – in cases where defendants have sought to assert their incompetency to stand trial or their lack of responsibility for the underlying criminal offense. The two most notorious cases in this cohort are the cases of Vincent “The Chin” Gigante and John Hinckley, but such evidence has also been introduced in a range of less familiar cases dealing with such questions as potential reduction in degrees of homicide, the capacity of a defendant to plead guilty, and the penalty

77Panetti, 128 S. Ct. at 2860.

78On the specific question of the value of neuroimaging evidence in discovering brain lesions that might affect criminal responsibility, see Shelley Batts, Brain Lesions and Their Implications in Criminal Responsibility, 27 BEHAV. SCI. & L. 261 (2009).

79See Perlin, supra note 4, at 895-98. There have been other locally- and regionally-high profile cases involving neuroimaging testimony. See e.g., United States v. Mezvinsky, 206 F. Supp. 2d 661 (E.D. Pa. 2002) (multi-million dollar fraud case; defendant was former Congressman); People v. Goldstein, 786 N.Y.S. 2d 428 (A.D. 2004), rev’d on other gds., 843 N.E. 2d 727 (N.Y. 2005) (murder case in which victim was Kendra Webdale, after whom NY’s assisted outpatient treatment law was named)

80Jane Moriarty, Flickering Admissibility: Neuroimaging in the U.S. Courts, 26 BEHAV. SCI. & L. 29, 39 (2008); see also, Snead, supra note 1, at 1298; Amanda Pustilnik, Violence on the Brain: A Critique of Neuroscience in Criminal Law, 44 WAKE FOREST L. REV. 183, 185 n. 9 (2009)(listing cases where such testimony has been offered by defendants at the mitigation stage of a death penalty case). See e.g., United States v. Williams, 2009 WL 424583, **5-6 (D. Hawai’i 2009) (discussing the debate as to the reliability of fMRI scans, and citing, inter alia, to Laura Khoshbin & Shahram Khoshbin, Imaging the Mind, Minding the Image: An Historical Introduction to Brain Imaging and the Law, 33 AM. J. L. & MED. 171 (2007) (discussed infra text accompanying notes 111-12).

81Moriarty, supra note 81, at 44.
phase of a death penalty trial.\textsuperscript{82} How will courts react when the question is whether the defendant is even eligible for the death penalty?

· Will defense counsel even think about this question? This returns us to the question of the inevitability of substandard quality of counsel often made available to defendants in death penalty cases.\textsuperscript{83} All too often, such lawyers are, in Judge Bazelon’s unforgettable phrase, “walking violations of the Sixth Amendment.”\textsuperscript{84} Is it too much to hope for to expect counsel to “get” the potential value of such testimony in \textit{Panetti}-type cases?

· Assuming counsel doesn’t “get it,” how will the courts construe \textit{Strickland v. Washington}\textsuperscript{85} in this context? I have elsewhere characterized this standard as “pallid”\textsuperscript{86}; is it likely that

\begin{itemize}
\item \textit{Id.} at 45; Snead, \textit{supra} note 1, at 1308 n. 215. \textit{See e.g.}, State v. Holmes, 5 So. 3d 42 (La. 2008).
\item \textsuperscript{84} \textit{David L. Bazelon, The Defective Assistance of Counsel, 42 U. Cin. L. Rev. 1, 2 (1973)}.
\item \textsuperscript{85} \textit{466 U.S. 668 (1984) (ineffectiveness-of-counsel standard)}.
\item \textsuperscript{86} \textit{Perlin, Death Disappears, supra note 83, at 348.}
\end{itemize}
counsel will be held ineffective for not seeking this sort of testing? An interesting parallel can be found in an investigation by Prof. Deborah Denno of the use of behavioral genetics evidence in criminal cases. Although Prof. Denno discusses a handful of cases in which failure to consider such evidence resulted in Strickland-based remands, these cases, she concludes, are a “minority, and courts generally “place... less importance on (this) evidence.” I would expect courts assessing the issue I am discussing here to fall in line.

Assuming that counsel does get it, who pays? Neuroimaging testing is expensive, and is more expensive in cases in which the examined defendant is incarcerated when

87 Compare Jones v. Ryan, – F. 3d –, 2009 WL 3152396, *8 (9th Cir. 2009) (defense counsel ineffective at sentencing level for failing to file motion for neuropsychological testing), to Sneed v. Johnson, 2007 WL 709778, *62 (N.D. Ohio 2007) (collecting cases where ineffectiveness not found in cases where counsel failed to seek appointment of neuropsychologist); for one example, see Jones v. Schriro, 450 F.Supp.2d 1023, 1044 (D.Ariz. 2006) (defendant presented no evidence that results of CAT scan, MRI or EEG would support a finding of cognitive impairment; no Strickland violation found).

88 See Jane Moriarty, Visions of Deception: Neuroimages and the Search for the Truth, 42 AKRON L. REV. 739 (2009); see also, Brian Reese, Using fMRI as a Lie Detector – Are We Lying to Ourselves? 19 ALB. L. J. SCI. & TECH. 205 (2009).


90 Id. at 338.
the test is performed.\textsuperscript{91} Services of experts skilled to testify about this testing are also expensive. I will return to this question shortly, but raise it here as well since I believe its resolution may well help resolve this issue as well.

2. In cases involving indigent defendants, will \textit{Ake v. Oklahoma}\textsuperscript{92} be interpreted expansively or restrictively?\textsuperscript{93} In \textit{Ake v. Oklahoma}, a death penalty case, the Supreme Court ruled that an indigent criminal defendant who makes a threshold showing that insanity is likely to be a significant factor at trial is constitutionally entitled to a psychiatrist’s assistance.\textsuperscript{94} However, the courts have generally read \textit{Ake} narrowly, and have refused to require appointment of an expert unless it is “absolutely essential to the defense.”\textsuperscript{95}


\textsuperscript{92}470 U.S. 68, 74 (1985) (indigent defendant’s right to insanity defense expert).

\textsuperscript{93}I address this generally in a neuroimaging context in Perlin, \textit{supra} note 3.

\textsuperscript{94}\textit{Ake}, 470 U.S. at 74 \textit{See generally}, 4 \textit{PERLIN}, \textit{supra} note 36, § 9A-5.1 at 217-27.

\textsuperscript{95}\textsc{Stephen A. Saltzburg & Daniel J. Capra}, \textsc{American Criminal Procedure} 802 (6th ed. 2000). \textit{See also} David A. Harris, \textit{Ake Revisited: Expert Psychiatric Witnesses Remain Beyond Reach for the Indigent}, 68 N.C. L. REV. 763, 783 (1990) (“Lower courts often have interpreted \textit{Ake} less than generously, unduly constricting the availability of the right.”); \textit{see also}, Comment, \textit{Nonpsychiatric Expert Assistance and the Requisite Showing of Need: A Catch-22 in the Post-Ake Criminal Justice System}, 37 \textit{Emory L.J.} 995 (1988) (arguing \textit{Ake} should be read to
In his exhaustive survey article about the implementation of Ake, Professor Paul Giannelli points out, in a slightly different context, that, "in 1985, the Ake Court could not have anticipated how the advent of DNA evidence would revolutionize forensic science."\(^9\) Nor, of course, could it have anticipated the new significance of neuroimaging evidence. To this point in time, however, lower courts have been generally reluctant to extend Ake to requests for funding for neuroimaging tests.\(^9\) In Bates v. State,\(^9\) no Ake violation was found where a defendant sought additional expert assistance in establishing functional organic brain damage, and in Smith v. Kearney,\(^9\) there was no Ake error where defendant sought funds for a PET scan.\(^10\) Although the court encompass nonpsychiatric expert assistance); Carla Drinan, *The Revitalization of Ake: A Capital Defendant’s Right to Expert Assistance*, 60 Okla L. Rev. 283 (2007).


\(^9\)750 So. 2d 6, 16-17 (Fla. 1999).


\(^10\)Smith was a challenge based on *Atkins v. Virginia*, 536 U.S. 304 (2002), arguing that the defendant’s mental retardation barred the imposition of the death penalty. Concluded the Court on this issue:

Thus, while we do not dispute Thompson's testimony that frontal lobe damage can be a cause of mental retardation, Smith has not demonstrated on the facts before us how a current PET scan would be useful in assessing the pivotal question presented in this case—whether his mental functioning was significantly more deficient thirty years ago than today.

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in *Walker v. Oklahoma*\(^{101}\) found that it was *Ake* error to fail to provide funds for additional neurological testing “to flesh out the etiology (of the defendant’s) mental illness,”\(^{102}\) it deemed that error harmless.\(^{103}\) On the other hand, *People v. Jones* did reverse a conviction because of the lower court’s refusal to fund brain scans.\(^{104}\)

Confounding this issue is the language in *Panetti* that appears to envision an expanded role for expert witnesses in this sort of inquiry, finding that trial court’s failure to allow the defendant to introduce evidence on this question was a failure of “constitutional dimensions.”\(^{105}\) Will this aspect of *Panetti* be given life in subsequent decisions? In the recent non-death penalty case of *Lewis v. Zon*,\(^{106}\) *Panetti* was relied on to grant a writ of habeas corpus., the court noting that “not allowing a defendant the opportunity to respond to evidence solicited by the state court to determine trial competency is inconsistent with a defendant’s procedural due process

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\(^{101}\) 167 F.3d 1339, 1348-49 (10th Cir.), cert. denied, 528 U.S. 987 (1999).

\(^{102}\) See *Allen v. Mullin,* 368 F 3d 1220, 1236 (10th Cir. 2004) (discussing *Walker*).

\(^{103}\) *Walker,* 167 F. 3d at 1348-49.


\(^{105}\) See *supra* text following note 71.

right.” To what extent will other courts follow this language from Lewis? We simply do not know yet.

3. Will prosecutors seek to introduce such testimony to rebut defendant’s Panetti applications?

In an earlier article, I discussed the impact that antipsychotic medication might have on a defendant’s neuroimaging results. Even the boldest commercial technology (the so-called “No Lie MRI”) warns of limitations on its valid use in the case of subjects who are “brain damaged”. Jane Moriarty underscores that such testimony is able to produce “false positives.” To what extent will prosecutors introducing such evidence “come clean” and share this information with jurors?

4. To what extent are judges more or less impervious to the “dazzle” or “Christmas tree effect” of such testimony than are jurors?

Steven Erickson writes about the “gloss of intrigue and seduction” inherent in neuroimaging testimony. Others have noted that the visual “allure” of

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107 Id. at 817.
108 See Perlin, supra note 3, at **33-43.
109 Reese, supra note 87, at 229.
111 Erickson, supra note 21, manuscript at 7.
112 Khoshbin & Khoshbin, supra note 80, at 182.
such testimony can “dazzle” and “seduce” jurors in ways that are “inappropriately persuasive.” Joelle Moreno says, flatly, “brain research is sexy.” I have noted that the vividness of this testimony may have a distortive impact on jurors; the open question is whether judges are less susceptible than jurors to the vividness heuristic in this setting?

Judges have the same predisposition to uncritically use the vividness heuristic in a variety of other legal settings, whether it be competency to stand trial, the applicability of the Americans with Disabilities Act to persons with mental disability, or dealing with lawyers with mental disability. Should we have any confidence that they will be immune to its ravages here?

118 Compare Greely, supra note 2, at 1104 n. 7: I recently organized a seminar for federal judges on legal issues in genetics and neuroscience. It was striking how uninterested judges were in violence-inducing
5. How will such testimony be dealt with if there is a Daubert challenge?\textsuperscript{119}

Scholars have expressed concern that many of the claims made in support of some uses of neuroscience testimony in courts are “wholly unsupportable.”\textsuperscript{120} Courts have been mixed in their assessment of neuroscience evidence under both Frye and Daubert. In at least three instances, Frye jurisdictions have rejected PET scan and SPECT scan evidence, in all cases finding that the evidence in question was not “generally accepted.”\textsuperscript{121} In other Daubert cases, though, such evidence has been accepted, albeit in matters involving civil causes of actions.\textsuperscript{122} For the purposes of this article, one of the most intriguing (albeit cryptical) cases is

\textsuperscript{119}See generally, Moriarty, supra note 80.\
\textsuperscript{120}Moriarty, supra note 87, at 747. See also, Reese, supra note 87, at 217 (expressing concern that jurors would “overvalue” such evidence).\
\textsuperscript{122}E.g., Hose v. Chicago Northwestern Transp. Co., 70 F. 3d 968, 973 (8\textsuperscript{th} Cir. 1995).
that of Hoskins v. State. There, in a death penalty case, the state Supreme Court vacated the sentence, noting,

Following the PET-scan and the evidentiary hearing, the trial judge concluded that the PET-scan did show an abnormality and that, as conceded by the State, Dr. Krop’s testimony changed as a result of the PET-scan. Because the trial judge has found in the affirmative, we vacate the sentence of death imposed on Hoskins and remand this cause for a new penalty phase proceeding.

In a footnote, the court noted that no Frye hearing was held, but that “The fact that the trial judge did not consider these issues at the evidentiary hearing does not affect our decision to remand this case.”

What is most critical here is the fundamental unfairness of the Daubert process:

It is obligatory to note the disparity in decisionmaking; that is, that, in Daubert cases, the prosecutor’s position is sustained (either in support of questioned expertise or in opposition to it) vastly more often than is that of defense counsel’s. The implications of these findings must be considered as well.

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123 735 So.2d 1281 (1999).
124 Id. at 1281.
125 Id. at n. 1.
126 D. Michael Risinger, Navigating Expert Reliability: Are Criminal Standards of Certainty Being Left on the Dock? 64 ALB. L. REV. 99, 105-08 (2000). In sixty-seven cases of challenged government expertise, the prosecution prevailed in sixty-one of these. Out of fifty-four complaints by criminal defendants that their expertise was improperly excluded, the defendant lost forty-four. Contrarily, in civil cases, ninety percent of Daubert appeals were by the defendants who prevailed two-thirds of the time. For a thoughtful analysis of Professor Risinger’s findings, see Deirdre Dwyer, (Why) Are Civil and Criminal Expert Evidence Different?, 43 TULSA L. REV. 381, 382-84 (2007).

By way of comparison, in a recent critique of how courts treat bite-mark testimony (offered “dressed in the illusion of science”),\textsuperscript{128} Prof. Erica Beecher-Monas notes that judges in criminal cases “overwhelmingly circumvent their (Daubert-mandated) gatekeeping responsibilities.”\textsuperscript{129} Writing about the use of Daubert in vaccine court cases, Prof. Joelle Moreno has perceptively noted:

Law does not happen in a vacuum. The idea that gatekeeping judges reflect on only the case-specific in-court impact of proffered scientific claims and theories ignores the real world outside the courthouse, the fact that information about science-based legal issues also travels from the bottom-up, and the genuine interdependence of law, science, and society. It is inarguable that judges must focus on the specific facts and issues in each case and the application of proffered scientific evidence to these facts. But, as Justice Breyer observed, this type of perpetual Daubertista focus is an incomplete description of the judicial task because “(t)he importance of scientific accuracy in the decision of such (science-based) cases reaches well beyond the case itself.”\textsuperscript{130}

Consider also the dangers of teleology in the context of mental disability law jurisprudence: how judges “teleologically … privilege (certain evidence) (where that privileging serves what they perceive as a socially-

\textsuperscript{127}Perlin, supra note 3, at 906-07.
\textsuperscript{128}Beecher-Monas, supra note 125, at 1369.
\textsuperscript{129}Id. at 1371.
beneficial value) and subordinate (such evidence) (where that subordination serves what they perceive as a similar value).”\textsuperscript{131} The post-\textit{Daubert} caselaw is a textbook example of teleology. I raise this issue here as a red flag to those who are concerned about the ways that judges “teleologically `cherry pick...’ social science evidence so as to justify (their) decisions”\textsuperscript{132} in this area of the law.

6. How will fact-finders deal with such testimony in cases where the evidence revealed by neuroimaging testimony does not comport with their (false) “ordinary common sense” view of “crazy” criminal defendants?\textsuperscript{133}


Neoconservative insanity defense and civil commitment reforms value psychiatric expertise when it contributes to the social control function of law and disparage it when it does not. In the criminal justice system, psychiatrists are now viewed skeptically as accomplices of defense lawyers who get criminals “off the hook” of responsibility. In the commitment system, however, they are more confidently seen as therapeutic helpers who get patients “on the hook” of treatment and control. The result will be increased institutionalization of the mentally ill and greater use of psychiatrists and other mental health professionals as powerful agents of social control.


\textsuperscript{133}See Perlin, \textit{supra} note 17, discussing “ordinary common sense” (OCS).
I have identified – as one of the prime “sanist myths”\textsuperscript{134} – the use by
jurors of “a fixed vision of popular, concrete, visual images of craziness” in
their decisionmaking in cases involving mentally disabled criminal
defendants.\textsuperscript{135} Michael Pardo, thus states flatly that neuroimaging evidence
is significant, in part, because it “provides jurors with information ... beyond
their common-sense background understanding.”\textsuperscript{136} Joshua Greene and
Jonathan Cohen predict that neuroscience evidence will “undermine
people’s common sense,” referring specifically to the public’s “libertarian
conception of free will and the retributivist thinking that depends on it.”\textsuperscript{137}

\textsuperscript{134}Sanism is an “irrational prejudice of the same quality and character of other irrational
prejudices that cause – and are reflected in – prevailing social attitudes of racism, sexism,
homophobia, and ethnic bigotry.” See e.g., Michael L. Perlin, “And My Best Friend, My Doctor /
Won’t Even Say What It Is I’ve Got”: The Role and Significance of Counsel in Right to Refuse
Treatment Cases, 42 SAN DIEGO L. REV. 735, 750 (2005). On sanism and death penalty
decisionmaking, see Michael L. Perlin, The Sanist Lives of Jurors in Death Penalty Cases: The
Puzzling Role of Mitigating Mental Disability Evidence, 8 NOTRE DAME J. L., ETHICS & PUB.
POL. 239 (1994). On sanism and the reception of and response to neuroimaging evidence, see
Perlin, supra note 4.

\textsuperscript{135}See e.g., Perlin, supra note 4, at 900.

\textsuperscript{136}Michael Pardo, Neuroscience Evidence, Legal Culture, and Criminal Procedure, 33 AM. J.

\textsuperscript{137}Joshua Greene & Jonathan Cohen, For the Law, Neuroscience Changes Nothing and
Everything, 359 PHIL. TRANS. R. SOC. LOND. B. 1775, 1776 (2004) (emphasis added). See also
generally, Dean Mobbs et al, Law, Responsibility, and the Brain, 5 PLOS BIOL. 0693, 0695 (April
2007) (neurosciece may play an “important role” in “updating the intuitions concerning free will
and responsibility that may implicitly underlie juror deliberations”).
Just as false OCS “contaminate(s)” insanity defense practice, we need to consider how fact-finders may respond to contrary-to-OCS evidence in Panetti cases. Confounding this issue is the research cited by Professor Daniel Martell, showing that jurors are more likely to be convinced by “‘bad,’ logically irrelevant explanations” for behavior if such explanations are couched in terms of neuroscience.”

In writing about neuroimaging evidence and the insanity defense, I recently had this to say:

Neuroimaging is (or isn’t) hard science. It is (or isn’t) relatively easy for jurors to interpret. It is (or isn’t) immune to falsification efforts. It is (or isn’t) objective. It will (or won’t) lead jurors to “better” verdicts in insanity cases. It will (or won’t) be used disproportionately in news-friendly cases. It will (or won’t) “trump” jurors’ inherent suspicion of the insanity defense. It does (and here there is no contradictory or antipodal position) raise a variety of important and provocative legal, behavioral, and social issues, none of which has received nearly enough attention by the courts or by commentators.

So what are we to make of this? I believe that the key to an answer here is a consideration of sanism: to what extent will our prejudices, our stereotypes, our slotting, and our typification overwhelm all other evidence and all other issues in this conversation? In every aspect of

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138 See Perlin, supra note 17, at 17.


On the question of the extent to which the use of neuroscience testing (through an fMRI) can teach us about how brain activation is affected when jurors engage in decisionmaking, see Jessica Salerno & Bette Bottoms, Emotional Evidence and Jurors’ Judgments: The Promise of Neuroscience for Informing Psychology and the Law, 27 BEHAV. SCI. & L. 273 (2009) (showing how neuroscience can help illuminate certain punitive attitudes of jurors); see also, Joshua Knabb et al, Neuroscience, Moral Reasoning, and the Law, 27 BEHAV. SCI. & L. 219 (2009) (same).
mental disability law that I have ever studied, the answer has been “to a great extent.” Is there any reason to think it will be less so here? Perhaps the seductive dazzle of colorful pictures will trump millennia of fear and superstition. But, as of today I wouldn’t bet on it (and this analysis again completely and consciously sidesteps the question of whether this evidence is as valuable in litigation as its proponents argue).  

Is it likely that similar attitudes will be affected by conflicting or contradictory evidence in Panetti cases? I am certainly not confident that the answer is a resounding “yes.”

7. How will the less well-known aspect of Panetti (that which deals with the need for additional expert testimony) be treated in such cases?

As I have already discussed, there appears to likely be a significant law-practice conflict between the expansive language in Panetti (seeing a broader role for experts), and the reality as to how Ake has been construed in the quarter-century since that case was decided. The issue is especially pressing here, given the potential miscomprehension of neuroimaging evidence by both judges and jurors, the distortions inherent in the evidence’s “Christmas tree effect,” and the “stacked deck” Daubert issue. If this aspect of Panetti is ignored, then it appears that the problems to which I allude throughout this paper will only be exacerbated.

8. What, actually, will neuroimagers do in such cases?

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140Perlin, supra note 4, at 915 (footnotes omitted).
The technology in question seeks to identify brain abnormalities in individuals with serious mental disabilities.\textsuperscript{141} The examining neuropsychologist must review available historical information from the defendant’s life history that might potentially point to possible brain impairment (e.g., documented head injuries or other neurological disease processes), or psychiatric disorders that indicate potential chemical and neurotransmitter abnormalities.\textsuperscript{142} Best practices dictate that neuropsychological testing should be employed to further clarify any neurobehavioral deficits and to pinpoint functional deficits that correlate with behavioral issues related to both the crime and the proposed neuroimaging study.\textsuperscript{143}

Whether structural (CT, MRI) or functional (PET, SPECT) approaches are employed will depend on the defendant’s mental and neurological history.\textsuperscript{144} Standard protocols typically used would include ensuring an awareness and appreciation of the procedure, potential risks and benefits


\textsuperscript{142} Perlin & McClain, \textit{supra} note 3, manuscript at 18; Harold V. Hall & D. McNinch, \textit{Linking Crime-Specific Behavior To Neuropsychological Impairment}, 10 IN’TL J. CLIN. NEUROPSYCHOL. 113 (1988).

\textsuperscript{143} Perlin & McClain, \textit{supra} note 3; Hall & McNinch, \textit{supra} note 142.

\textsuperscript{144} On the question of informed consent in a neuroimaging context, see Perlin, \textit{supra} note 3, at **25-36; Greely, \textit{supra} note 2; Jennifer Kulynych, \textit{The Regulation of MR Neuroimaging Research: Disentangling the Gordian Knot}, 33 AM. J.L. & MED. 295 (2007).
from the procedure, and the ability to make a decision regarding these issues.

The Court clarifies that it is limiting its decision to individuals with “severe mental illness,” as opposed to those with a “misanthropic personality disorder.” The question of whether a personality disorder might be the basis for an insanity defense has plagued the courts for years, and it can be expected that this aspect of the Court’s opinion will provoke significant new future case law and scholarship.

In the case of a defendant alleging incompetency to be executed, this all will be far more challenging. To the best of my knowledge, it is an issue that has not been addressed either in the caselaw or the academic

\[145\] Panetti, 127 S. Ct. at 2862.

\[146\] Compare e.g., United States v. Salava, 978 F.2d 320 (7th Cir. 1992) (rejecting a government argument that expert testimony on the insanity defense should be excluded because the diagnosis did not qualify as “severe” for purposes of 18 U.S.C. § 17; instead accepting the expert's opinion that the defendant's diagnosis of antisocial and paranoid personality disorder were severe), to Beiswenger v. Psychiatric Sec. Review Bd., 84 P.3d 180 (Or. Ct. App. 2004) (because legislature intended to exclude personality disorders such as sexual conduct disorders and substance abuse from the definition of “mental disease or defect” under the insanity defense, personality disorders also should not be treated as mental diseases or defects when considering the continued commitment of insanity acquitted). See generally, Bruce Winick, Ambiguities in the Legal Meaning and Significance of Mental Illness, 1 PSYCHOL. PUB. POL'Y & L. 534 (1995) (discussing the implications of Foucha v. Louisiana, 504 U.S. 71 (1992), on this question (in Foucha, the Supreme Court ruled that due process barred the retention of a nonmentally ill insanity acquittee in a mental hospital).
But is an issue that inevitably will need to be resolved in the aftermath of Panetti.

**Conclusion**

There has been an explosion of commentary and academic literature in recent years about the impact of neuroimaging testimony on the criminal trial process, but, to the best of my knowledge, no one has yet considered the relationship between that issue and the standards for determining competency-to-be-executed as set out in the Panetti case. The issues that I have raised in this paper cover a fairly wide range of questions – questions of counsel behavior, juror attitudes, and evidentiary considerations – that, when looked at together, reflect so many of the tensions and ambivalences that are inherent in criminal trials, especially those of death-eligible defendants.\(^\text{148}\)

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\(^{147}\) I consider it in the broader context of criminal procedure in general in Perlin & McClain, *supra* note 3.

Panetti builds on, clarifies and expands the Ford standard by adding the requirement that the defendant possess a “rational understanding” of the purposes of the forthcoming execution.\(^{149}\) But it also enhances the role of expert witnesses at competency-to-be-executed hearings.\(^{150}\) As more and more attention is paid to the role of neuroimaging in the courts, it is inevitable that the use of this testimony will be used (or at least, sought to be used) at such hearings, both by defendants and by prosecutors. We are still faced with the unanswered questions as to how judges and jurors will assess such testimony.

The story of cases involving defendants with severe mental disabilities who are subject to the death penalty is, in great part, the story of abdication on the part of lawyers (leaving it to mental health professionals to develop their own competence assessment standards with little assistance) and on the part of judges (refusing to independently assess clinical testimony), the failure of most clinicians to use standardized and validated tests, and the lack of meaningful dialogue between the lawyer and the evaluator. All of these are

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\(^{149}\) *Panetti*, 128 S. Ct. at 2860.

\(^{150}\) *Id.* at 2858.

As I noted earlier, the Ford test has, all too often, been no test at all.\footnote{Panetti, 127 S. Ct. at 2858} Prof. Richard Bonnie refers to the “appalling failures” of the criminal justice system that are “amply documented” by Panetti. \footnote{Richard Bonnie, Panetti v. Quarterman: Mental Illness, the Death Penalty, and Human Dignity, 5 Ohio St. J. Crim. L. 257, 282 (2007).} In its Panetti decision, the Court stressed that, in a case in which a prisoner’s mental state “is so distorted by a mental illness” that he does not share with “the community as a whole” an understanding of the concepts of crime and punishment, the objective “of community vindication (is) called in question.”\footnote{Panetti, 127 S. Ct. at 2861} For years, scholars have been tentatively exploring the relationship between therapeutic jurisprudence\footnote{See e.g., Therapeutic Jurisprudence: The Law as a Therapeutic Agent 121, 122 (David Wexler ed. 1990); Essays in Therapeutic Jurisprudence (David B. Wexler & Bruce J. Winick eds. 1991); Law in a Therapeutic Key: Recent Developments in Therapeutic Jurisprudence (David B. Wexler & Bruce J. Winick eds. 1996); Therapeutic Jurisprudence Applied: Essays on Mental Health Law (Bruce J. Winick ed. 1997); David B. Wexler, Putting Mental Health Into Mental Health Law: Therapeutic Jurisprudence, 16 L. & Hum. Behav. 27 (1992).} and its implications for the execution of persons with severe mental disabilities.\footnote{See e.g., Therapeutic Jurisprudence: The Law as a Therapeutic Agent 121, 122 (David Wexler ed. 1990); Essays in Therapeutic Jurisprudence (David B. Wexler & Bruce J. Winick eds. 1991); Law in a Therapeutic Key: Recent Developments in Therapeutic Jurisprudence (David B. Wexler & Bruce J. Winick eds. 1996).} Here, the Court frontally considers the
implications of this dilemma. But it does not – as it was not before it in the
Panetti case – consider how neuroscience evidence might be used (or
misused) in seeking to resolve these difficult questions.

We are just scratching the surface of the world of neuroscience. I
conclude by repeating my conclusions from another recent paper that I
have published about this topic, simply because I think these words are the
best I can do:

   I sense the power of the evidence in question, and because of my
fears that its seductive dazzle may hold jurors in thrall, leading to
outcomes that are both factually and legally inaccurate and
constitutionally flawed. My hope is that a consideration of the issues
that I am raising here will lead all of us to think a little harder about the
road ahead.157