

IMPLEMENTING THE DEATH PENALTY: THE
MORAL IMPLICATIONS OF RECENT ADVANCES IN
NEUROPSYCHOLOGY

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*Science cannot, of course, gauge moral culpability. Scientists can, however, shed light on certain measurable attributes that the law has long treated as highly relevant to culpability.*¹

*[T]he question of [criminal] responsibility is not primarily a question of medicine, any more than it is a question of law. It is essentially a moral question, with which the law is intimately concerned and to whose solution medicine can bring valuable aid, and it is one which is most appropriately decided by a jury of ordinary men and women, not by medical or legal experts.*²

INTRODUCTION

Prior to the twentieth century, the criminal law did not meaningfully distinguish between the mentally ill and the mentally retarded. The attribution of criminal responsibility turned simply on whether or not the defendant was “*non compotes mentis*, from whatever cause.”³ With the publication of Jean Esquirol’s *Des Maladies Mentales* in 1838 and Henry Maudsley’s *Responsibility in Disease* in 1876, scientists began recognizing that there might be medically significant distinctions between the mentally retarded and the mentally ill. The criminal law, in turn, began treating individuals suffering from neurological defects differently depending upon whether it deemed the individual mentally ill, mentally retarded or simply antisocial.⁴

¹ Brief of American Medical Association et al. as Amicus Curiae in support of Respondent at 3, *Roper v. Simmons*, 543 U.S. 551 (2005) [hereinafter *Simmons* AMA Brief].

² ROYAL COMMISSION ON CAPITAL PUNISHMENT 1949-53 REPORT ¶ 283, in *FREEDOM AND RESPONSIBILITY* (Herbert Morris ed., 1961).

³ THOMAS COOPER, *TRACTS ON MEDICAL JURISPRUDENCE* 359 (1819).

⁴ The term “antisocial” is exceedingly broad and ill-defined. In the context of the criminal law it generally encompasses both individuals that are suffering from neurological damage or

Nowhere are the ramifications of such line-drawing more real today than in the context of the death penalty. If, at either a pretrial proceeding or at sentencing, an individual is determined to be mentally retarded, the Supreme Court has held that it offends the Eighth Amendment's prohibition against cruel and unusual punishment to execute him.⁵ By contrast, all other individuals suffering from neurological disease or defect that are convicted of a capital offense are eligible for the death penalty; their fate depends upon the balance of the aggravating and mitigating evidence as determined by the trier of fact at sentencing. The Supreme Court has failed, however, to articulate any principled basis for why it has singled out those individuals suffering from the neurological defects associated with mental retardation as the only group of individuals suffering from neurological abnormalities that are ineligible for the death penalty. Based on emerging research in the field of neuropsychology,⁶ the Court's disparate treatment of individuals suffering from neurological damage or defect based merely on diagnostic labels such as "mentally retarded," "mentally ill" or "psychopath"⁷ appears increasingly arbitrary and indefensible in the context of its death penalty jurisprudence.

The death penalty is reserved for only our most morally culpable offenders. It follows therefore, that it violates the Eighth Amendment's prohibition against cruel and unusual punishment to execute individuals who suffer from neurological conditions that diminish their capacity for moral agency. Indeed, the Supreme Court has begun, at least implicitly, to recognize that the health and development of the human brain can be relevant in assessing an individual's moral culpability for his conduct. Specifically, in *Atkins v. Virginia*⁸ and *Roper v. Simmons*,⁹ the Court

defect that do not qualify as "mentally retarded" or "mentally ill," as well as those individuals who have the requisite capacity to function as a moral agent but simply choose not to do so.

⁵ *Atkins v. Virginia*, 536 U.S. 304, 321 (2002).

⁶ The study of neuropsychology is concerned with "how certain cognitive operations and their components relate to neural systems and their components." ANTONIO DAMASIO, *DESCARTES' ERROR: EMOTION, REASON, AND THE HUMAN BRAIN* 53 (1994). But as Damasio cautions, "[n]europsychology is not . . . about finding the brain 'localization' for a 'symptom' or a 'syndrome.'" *Id.*

⁷ The use of the term "psychopath" for purposes of this Article refers to certain individuals suffering from neurological damage and does not include those individuals David Lykken characterized as "sociopaths," e.g., individuals who, while physically healthy neurologically, were not adequately socialized during their formative years. See DAVID T. LYKKEN, *THE ANTISOCIAL PERSONALITIES*, 21-32 (1995). Such individuals are also sometimes referred to as "secondary psychopaths." See Carl Elliott & Grant Gillett, *Moral Insanity and Practical Reason*, 5 PHIL. PSYCHOL. 53, 65-66 (1992) (describing the secondary psychopath as someone who "has never learned successful response strategies because he has never encountered a consistent social training process which would articulate and order, in socially adaptive ways, his dispositions to respond").

⁸ 536 U.S. 304 (2002).

held that because of the neurological differences between the mentally retarded and adolescents, respectively, on the one hand, and healthy adults on the other, the mentally retarded and adolescents are less morally culpable for their conduct than healthy adults and thus ineligible for the death penalty.¹⁰

The Supreme Court's instincts are certainly correct; the health and development of the human brain can impact an individual's capacity for moral agency, and thus the extent to which he is morally culpable for his conduct. That being said, the Court's reliance on "mental retardation" as the sole distinguishing criteria, in addition to adolescence, that renders an individual ineligible for the death penalty, is misguided. The legal determination that an individual is mentally retarded relies primarily on basic cognitive tests. These tests do not adequately evaluate an individual's capacity to acquire all of the skills necessary to qualify as a full moral agent. For purposes of this Article, it will be assumed that a moral agent is someone who has the *capacity* to both be motivated by moral norms for moral reasons and to consistently conform his conduct to them.¹¹ As will be discussed, the requisite internal motivation requires that an individual has the capacity to *emotionally* understand moral norms and be able to successfully integrate the cognitive and the emotional to produce action consistent with those understandings. Simply possessing the capacity for cognitive understanding, therefore, is insufficient.

This is not to argue that all individuals suffering from neurological

⁹ 543 U.S. 551 (2005). *Simmons* came before the Court in an unusual posture. After the Court issued its ruling in *Atkins*, the respondent in *Simmons* filed a new petition for state post-conviction relief, arguing that based on the Court's reasoning in *Atkins*, it necessarily followed that the Constitution prohibits the execution of an individual who was under eighteen when he committed the crime. The Missouri Supreme Court agreed, and the State appealed the decision to the Supreme Court. *Id.* at 559.

¹⁰ *Atkins*, 536 U.S. at 321; *Simmons*, 543 U.S. at 572-73. Additionally, the Court has recently recognized that evidence of neurological damage that diminishes an offender's moral culpability for his conduct can serve as mitigating evidence at the sentencing phase of a capital trial. *Abdul-Kabir v. Quarterman*, 127 S. Ct. 1654, 1673 (2007). *But see* *Schriro v. Landrigan*, 127 S. Ct. 1933, 1944 (2007) (reversing the Ninth Circuit's decision granting a capital defendant an evidentiary hearing to explore, *inter alia*, the neurological damage the defendant likely suffered as a result of fetal alcohol syndrome, the Court characterized such mitigation evidence as "weak"). These decisions, issued within a month of each other, suggest the Court is not only deeply divided, but also unsettled, as to the role evidence of neurological damage should play in assessing a defendant's moral culpability for his conduct. Justice Kennedy, who authored *Roper v. Simmons*, was the only Justice in the majority in both of the aforementioned cases.

¹¹ By "capacity" this Article is exclusively focused on whether physical damage or deformity to the brain has compromised an individual's ability to acquire or sustain the skills necessary to function as a full moral agent. It does not address the effect other biological conditions, such as a chemical imbalance, or social factors, such as early abusive parenting, may have on an individual's moral culpability for his conduct, which is not to say such considerations may not be relevant.

disease or defect have a diminished capacity for moral agency. There are undoubtedly many individuals suffering from neurological abnormalities who are as morally culpable for their conduct as a healthy adult who commits the same act under similar circumstances. On the flip side, however, there are likewise many individuals suffering from neurological abnormalities who possess sufficient cognitive skills such that they do not qualify as mentally retarded but who nevertheless have a diminished capacity for moral agency. These individuals cannot qualify as our most culpable offenders, and thus it violates the Eighth Amendment to execute them. Yet the current test for death eligibility with its exclusive focus on mental retardation fails to adequately identify such individuals.

Indeed, emerging neurological research suggests that adolescents, as well as many, if not all, individuals the criminal law currently labels as mentally retarded, mentally ill, or even psychopathic, share a dispositive characteristic: their brains, typically their prefrontal cortexes, are either damaged, defective and/or underdeveloped. As will be discussed, the prefrontal cortex integrates our emotional and cognitive brain systems, thereby enabling the human brain to, among other things, hold images of the past, create representations about the future and shift perspective. In other words, the prefrontal cortex provides the essential foundation that enables the individual to engage in conduct that is informed by experience, predications about uncertain events and the ability to empathize with others. The prefrontal cortex, therefore, is critical to an individual's ability to reliably select and implement appropriate action strategies when the outcome is ambiguous and context dependent. If we are, therefore, to take the Supreme Court at its word that the death penalty is reserved for only our most morally culpable individuals, the criminal law must begin to recognize what we are starting to learn about how certain brain abnormalities can diminish an individual's capacity for moral agency, thereby rendering him less culpable for his conduct than a healthy adult, and attribute punishment accordingly.

This Article is principally concerned with the imposition of one form of punishment—the death penalty—and, specifically, who is an inappropriate recipient of society's harshest punishment. It posits that: (1) an individual who is not a fully accountable moral agent should not be subjected to the punishment society reserves for its worst offenders; and (2) in evaluating who is eligible for the death penalty, we should not rely exclusively on limited cognitive tests, such as those associated with the diagnosis of mental retardation, but instead engage in a more

robust evaluation aided by the use of neurological evidence¹² into whether a defendant suffers from neurological damage or defect that diminishes his *capacity* to successfully integrate the intellectual and emotional brain systems necessary to be able to both appreciate society's moral norms and consistently conform his conduct to them. Significant impairment to said capacity, similar to those experienced by adolescents and the mentally retarded, should render the offender ineligible for the death penalty.

The Article is divided into seven parts. Part I introduces Daryl Atkins, a death row inmate whose appeal to the U.S. Supreme Court resulted in abolishing the death penalty for the mentally retarded; Part II reviews the qualities and attributes generally associated with a moral agent; Part III provides a historical overview that reveals how the legal test for moral agency has evolved over time to respond to different socio-political objectives; Part IV begins a dialogue regarding the extent to which the neurological health and development of an individual convicted of a capital offense is relevant to assessing the offender's moral culpability for his conduct; Part V examines how recent advances in neuropsychology have influenced the Supreme Court's death penalty jurisprudence; Part VI proposes extending the reasoning in *Atkins* and *Simmons* to benefit other individuals whose neurological abnormalities diminish their capacity for moral agency and acknowledges some of the controversies and challenges such a proposal raises; and Part VII concludes with a reflection on the case of Daryl Atkins and the Supreme Court's failure to appreciate the implications of its own reasoning.

I. INTRODUCING DARYL ATKINS

On the night of August 16, 1996, Daryl Atkins and William Jones, armed with a semiautomatic handgun, abducted Eric Nesbitt, drove him to an automated teller machine, forced him to withdraw \$200 and then took him to an isolated location where he was shot eight times and killed.¹³ The crime committed was indisputably horrific and, to the

¹² This is not to argue that there is not other probative evidence on the issue of an individual's capacity for moral agency that could be introduced in lieu of or in conjunction with neurological evidence. Neurological evidence, however, has the potential to provide particularly compelling information about a defendant's capacity to affectively understand moral norms and his capacity to integrate the cognitive and the emotional brain systems necessary to be able to produce action consistent with his understanding. The capacity to acquire these skills, which are essential to qualify as a full moral agent, is not adequately addressed by the limited cognitive tests for mental retardation that the Court has heretofore endorsed, and the use of additional neurological evidence has the potential to significantly rectify that omission.

¹³ An ATM security camera recorded airman Eric Nesbitt seated in a truck between William

extent that Daryl Atkins played a role in perpetrating it, society needs to be protected from him. Yet eleven years and seven court proceedings later, including an appeal to the United States Supreme Court, Daryl Atkins' fate has yet to be determined.

Ironically, it is Atkins' case in which the Supreme Court held that executing the mentally retarded violates the Eighth Amendment's prohibition against cruel and unusual punishment. Yet, it is far from clear that the case bearing his name will benefit Daryl Atkins. Following remand from the Supreme Court to determine whether Atkins qualifies as "mentally retarded," the defense and prosecution have simply resumed their almost decade-long debate over what "diagnostic" label best describes Daryl Atkins and the consequences that should follow from that diagnosis. If the jury finds Atkins is mentally retarded, he will be spared the death penalty, and if it finds he is not, Atkins will be executed.

This protracted debate, however, asks the wrong question and represents an injudicious use of the state's resources. As will be discussed, recent advances in neuropsychology suggest that an individual's capacity to acquire critical skills necessary to function as a full moral agent is dependent on the successful integration of both cognitive *and emotional* brain systems, which in turn is substantially influenced by the health and development of an individual's prefrontal cortex. The limited cognitive tests used to diagnose mental retardation provide little, if any, information about an individual's capacity to both experience emotion and to integrate successfully the cognitive and emotional processes necessary to appreciate moral norms and be able to consistently conform his conduct to them.¹⁴ In other words, the tests used to diagnose mental retardation tell us very little about the extent to which an individual should be held morally accountable for his conduct.

The anecdotal evidence that has been presented at his many sentencing hearings is certainly suggestive of someone suffering from substantial cognitive and emotional deficiencies that likely diminish his

Jones (26 years old) and Daryl Atkins (18 years old) shortly before the murder. *Atkins v. Virginia*, 536 U.S. 304, 307 (2002); Brief for Petitioner at 1-2, *Atkins v. Virginia*, 536 U.S. 304 (2002) [hereinafter *Atkins* Brief for Petitioner]. The police found Atkins at home and arrested him, at which point he made a statement admitting his involvement in Nesbitt's death but identified Jones as the triggerman. *Atkins* Brief for Petitioner, *supra* at 2. Jones in turn fingered Atkins and was permitted to plead guilty in exchange for taking the death penalty off the table. *Atkins*, 536 U.S. at 308 n.1.

¹⁴ According to the American Association on Intellectual and Developmental Disabilities ("AAIDD") (formerly the American Association on Mental Retardation), "[m]ental retardation is a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills" that originates before age eighteen. AAIDD, Definition of Mental Retardation, http://www.aamr.org/Policies/faq_mental_retardation.shtml (last visited Aug. 24, 2007).

capacity for moral agency. Atkins failed both the second and eighth grades.¹⁵ In high school he was placed in lower-level classes for slow learners and classes with intensive instruction for remedial deficits.¹⁶ His high school instruction focused on acquiring the most basic practical skills, such as reading menus and understanding road signs.¹⁷ He failed drivers education twice and never received a driver's license.¹⁸ He was even kicked off the football team because he was unable to tell right from left and had trouble learning plays.¹⁹ And, perhaps nothing is more emblematic of his limited abilities than the fact that in the ninth grade he copied a classmate's assignment word for word, including the classmate's name, and handed it in as his own.²⁰ Atkins finally dropped out of high school at age 18 after failing the tenth grade for the third time.²¹ He was arrested for his role in the murder of Eric Nesbitt a few months later.

It is unclear whether such demonstrated deficiencies are simply the result of life choices Atkins made or emblematic of fundamental neurological deficiencies that might be relevant to his status as a moral agent. The jury, however, has not been provided the opportunity to review neurological evidence that might directly implicate Atkins' capacity for moral agency. Indeed, such evidence is not necessary given the terms in which the Supreme Court has framed the debate. The jury can answer the more narrow question posed by the Court—whether Atkins is mentally retarded—primarily by reviewing the results of certain basic cognitive tests, chief among them being Atkins' I.Q. score.

Before examining in more detail what recent neurological advances might be able to tell us about what evidence is more probative of an individual's culpability for his actions than the limited cognitive inquiry involved in the diagnosis of mental retardation, this Article first examines why in the context of the death penalty it matters whether a defendant, who has already been found guilty of committing a capital offense, suffers from a diminished capacity to function as a full moral

¹⁵ *Atkins v. Commonwealth*, 534 S.E.2d 312, 322 (Va. 2000) (Koontz, J., dissenting).

¹⁶ *Id.*

¹⁷ Donna St. George, *A Question of Culpability: Mental Capacity of Convicted Virginia Man is a Murky Legal Issue*, WASH. POST, July 23, 2005, at A1.

¹⁸ See, e.g., *id.*; *Atkins* Brief for Petitioner, *supra* note 13, at 4 n.6 (citing the review of Daryl Atkins' school records presented in the January 15, 1998 Capital Sentencing Evaluation report prepared by Dr. Evan Nelson). But see Brief for Respondent at 7 n.7, *Atkins v. Virginia*, 536 U.S. 304 (2002) [hereinafter *Atkins* Brief for Respondent] (citing a June 30, 1999 psychological evaluation report prepared by Dr. Robert S. Brown, Jr. in which Dr. Brown asserts that during an interview with him Atkins claimed that he never attempted to acquire a driver's license).

¹⁹ St. George, *supra* note 17, at A1.

²⁰ Adam Liptak, *Court Orders a New Trial for an Inmate on Death Row*, N.Y. TIMES, June 9, 2006, at A2.

²¹ St. George, *supra* note 17, at A1.

agent, and then provides the reader with an overview of the qualities and attributes generally associated with the moral agent.

II. THE MORAL AGENT

The Supreme Court has held that “the culpability of the average murderer is insufficient to justify the most extreme sanction available to the State.”²² Accordingly, the Court has limited the imposition of capital punishment to only “those offenders who commit ‘a narrow category of the most serious crimes’ and whose extreme culpability makes them ‘the most deserving of execution.’”²³ And by “extreme culpability,” the Court has clarified that the heinousness of the crime committed is not the sole defining consideration. As Justice O’Connor eloquently explained in her dissent in *Enmund v. Florida*: “[T]he Eighth Amendment concept of proportionality involves more than merely a measurement of contemporary standards of decency. It requires in addition that the penalty imposed in a capital case be proportional to the harm caused *and the defendant’s blameworthiness*.”²⁴ Indeed, just this past term the Court observed that it had “long recognized that before a jury can undertake the grave task of imposing a death sentence, it must be allowed to consider a defendant’s *moral culpability* and decide whether death is an appropriate punishment for that individual in light

²² *Atkins v. Virginia*, 536 U.S. 304, 319 (2002). As early as 1910, in *Weems v. United States*, 217 U.S. 349, 367 (1910), the Court explained that “it is a precept of justice that punishment for crime should be graduated and proportioned to offense,” holding that punishment in excess of the offense violates the Eighth Amendment’s prohibition against cruel and unusual punishment. Additionally, the *Weems* Court recognized that the definition of cruel and unusual punishment “is not fastened to the obsolete but may acquire meaning as public opinion becomes enlightened by a *humane justice*.” *Id.* at 378 (emphasis added). Fleshing out the notion of “humane justice,” Justice O’Connor subsequently explained that “proportionality requires a nexus between the punishment imposed and the defendant’s blameworthiness.” *Enmund v. Florida*, 458 U.S. 782, 825 (1982) (O’Connor, J., dissenting).

²³ *Roper v. Simmons*, 543 U.S. 551, 553 (2005) (quoting *Atkins*, 536 U.S. at 319). By ensuring that the punishment is proportional to an offender’s culpability, the Eighth Amendment protects “the dignity of society itself from the barbarity of exacting mindless vengeance.” *Ford v. Wainwright*, 477 U.S. 399, 410 (1986); see *Trop v. Dulles*, 356 U.S. 86, 100 (1958) (plurality opinion) (“The basic concept underlying the Eighth Amendment is nothing less than the dignity of man.”).

²⁴ *Enmund*, 458 U.S. at 823 (O’Connor, J., dissenting) (emphasis added). Indeed, Dr. Isaac Ray recognized as much in his treatise on insanity published in 1838. Dr. Ray acknowledged that “[s]ociety has a right to protect itself against the aggressions of the dangerously insane” but warned that “unnecessary severity in its protective measures often defeats the very purpose in view, and indicates a want of humanity and intellectual enlightenment. While confinement in prisons and mad-houses furnishes all the restraint which the necessity of their case requires, it is idle to urge the infliction of death.” ISAAC RAY, A TREATISE ON THE MEDICAL JURISPRUDENCE OF INSANITY 330 (Boston, Little, Brown, and Company, 5th ed. 1871) (1838).

of his personal history and characteristics and the circumstances of the offense.”²⁵ And in certain cases, namely those involving adolescent or mentally retarded offenders, the Court has removed the assessment of moral culpability from the jury altogether, holding such defendants *per se* ineligible for the death penalty in order “to ensure that only the most deserving of execution are put to death.”²⁶

Although it may seem intuitively obvious that the mentally retarded and adolescents are not as morally culpable for their conduct as a healthy adult and should thus be ineligible for the death penalty, it is critical to understand why that should be so in order to humanely apply that intuition to more difficult cases. As recent advances in neuropsychology suggest, adolescents and the mentally retarded are hardly the only demographic groups that are characterized by a diminished capacity to acquire the skills necessary to qualify as full moral agents due to neurological limitations. To better appreciate the potential role that recent neurological research can play in evaluating an individual’s capacity for moral agency, this section begins with an inquiry into some of the attributes associated with the moral agent and concludes with a brief overview of adolescent development pursuant to which a healthy individual acquires the requisite capacity to participate in society’s shared moral dialogue.

A. *Attributes of a Moral Agent*

Aristotle is often credited with having been the first to explicitly construct a theory of moral responsibility. In *0*, Aristotle argued that not all beings capable of action qualify as a moral agent; to qualify as a moral agent an individual must both be *aware* of his actions and be able

²⁵ *Abdul-Kabir v. Quarterman*, 127 S. Ct. 1654, 1674 (2007) (emphasis added).

²⁶ *Atkins*, 536 U.S. at 319; see *Simmons*, 543 U.S. at 563. Justice Scalia dissented in both *Atkins* and *Simmons*, in part because he objected to the Court’s explicit incorporation of an offender’s culpability into the proportionality analysis of its death penalty jurisprudence. According to Justice Scalia, the extent of retribution society should extract from an offender should be measured solely by the “depravity of the crime” committed. *Atkins*, 536 U.S. at 350-51 (Scalia, J., dissenting); see *Simmons*, 543 U.S. at 618-19 (Scalia, J., dissenting) (equating culpability with the “monstrous” nature of the crime). The more heinous the crime, the more culpable the offender, regardless of his capacity to be consistently motivated by moral norms for moral reasons, i.e., irrespective of the offender’s ability to participate in the discourse that provides the moral justification for society’s infliction of punishment. Cf. MICHAEL BAVIDGE, *MAD OR BAD?* 30-31 (1989) (explaining that because the empirical facts relating to the commission of a crime are not necessarily relevant to the assessment of an offender’s moral culpability for his conduct, “[o]ne crime may be more odious or hateful than another though the person who perpetrates the former be less responsible than the one who commits the latter”).

to control them.²⁷ Only those actions that are voluntary and the product of the actor's deliberate choice merit society's praise or blame.²⁸ By contrast, Aristotle posited it was inappropriate to punish one whose action is involuntary, i.e., "done under compulsion or through ignorance."²⁹

Although the foregoing is an exceedingly simplistic sketch of Aristotle's theory of moral agency, it serves to raise the following questions: What does it mean for an individual to be aware of what he is doing? Do we simply demand that the individual possess a cognitive awareness of his actions? Or must the individual also have the capacity to affectively understand how his conduct impacts others before he qualifies as a moral agent? And what does it mean to be in control? Is it simply the ability to consciously choose to act? Or are there degrees of control that we should recognize if the individual, while possessing the ability to select and implement a course of action, lacks the capacity to draw effectively on the lessons of past experiences and apply them to current and future situations? If the individual does not have the cognitive capacity to assess appropriate courses of action can it be said that he has the same degree of control as someone who has the ability to do so and chooses not to conform his conduct appropriately?

Elaborating on the foundation laid by Aristotle, philosophers and legal scholars have suggested that to qualify as a full moral agent an individual should possess the capacity to:³⁰

- care for the interests of other human beings;³¹
- engage in the moral evaluation of one's self and experience moral emotions such as guilt, shame, remorse and resentment;³²
- internalize the normative expectations of others;³³
- be able to explain and criticize moral rules;³⁴
- identify oneself as a participant in the community's blaming practices;³⁵

²⁷ ARISTOTLE, *NICOMACHEAN ETHICS* 1110a-1112b (F.H. Peters trans., Barnes & Noble, Inc. 2004) (1893).

²⁸ *Id.*

²⁹ *Id.*

³⁰ The identified list of attributes is both overlapping and nonexhaustive.

³¹ See, e.g., Peter Arenella, *Convicting the Morally Blameless: Reassessing the Relationship between Legal and Moral Accountability*, 39 *UCLA L. REV.* 1511, 1525 (1992); James R. Rest, *The Major Components of Morality*, in *MORALITY, MORAL BEHAVIOR, AND MORAL DEVELOPMENT* 24, 27 (William M. Kurtines & Jacob L. Gewirtz eds., 1984); Michael S. Pritchard, *Responsibility, Understanding, and Psychopathology*, 58 *THE MONIST* 630, 644 (1974).

³² See, e.g., Pritchard, *supra* note 31, at 644.

³³ See, e.g., Arenella, *supra* note 31, at 1525.

³⁴ See, e.g., *id.*; Anthony Duff, *Psychopathy and Moral Understanding*, 14 *AM. PHIL. Q.* 189, 195 (1977).

³⁵ See, e.g., Arenella, *supra* note 31, at 1525.

- acquire a minimal understanding of the moral concepts applicable to them;³⁶
- respond to moral norms as a motivation for one's conduct;³⁷
- understand how moral rules may or may not be extended to apply to new situations, which "requires a *creative* capacity to understand the significance of the value in question,"³⁸
- accurately interpret a situation and be able to identify the moral problem;³⁹
- formulate plans of action;⁴⁰
- evaluate various courses of action;⁴¹ and
- control one's conduct to the extent necessary to be able to act in accordance with one's moral judgments.⁴²

In other words, to qualify as a moral agent individuals must have the *capacity* to "cognize[, fe[el] and act[] upon" moral norms,"⁴³ and the *ability* to "claim authority for [their] moral thoughts, feelings and actions . . . assume responsibility and accountability for [their] moral actions, and . . . act[] on behalf of [their] moral perspective."⁴⁴ A full moral agent must, therefore, possess not only the necessary cognitive foundation to understand moral norms on an intellectual level, but he must also have the capacity to integrate them into his sense of self and be able to reliably conform his conduct to them.⁴⁵

This in turn suggests that a moral agent must possess not only a certain cognitive acuity, but also the capacity to emotionally appreciate and understand moral norms, e.g., self-identify with moral norms and be vulnerable to feelings of shame, guilt, and remorse when he fails to conform his conduct in accordance with them. It is only through an affective understanding that an individual comes to identify with and

³⁶ Duff, *supra* note 34, at 194-95 (arguing that moral understanding requires "emotional and imaginative capacities" in addition to intellectual capabilities).

³⁷ See, e.g., Arenella, *supra* note 31, at 1525.

³⁸ Duff, *supra* note 34, at 195 (emphasis in original); see Elliott & Gillet, *supra* note 7, at 57 (1992) (Moral understanding requires the ability "to apply one's moral values imaginatively.").

³⁹ Rest, *supra* note 31, at 27; Duff, *supra* note 34, at 189.

⁴⁰ Rest, *supra* note 31, at 27.

⁴¹ *Id.*

⁴² *Id.*; Duff, *supra* note 34, at 189.

⁴³ Thomas E. Wren & Gil G. Noam, *Introduction: Building a Better Paradigm*, in *THE MORAL SELF*, at vii, ix (Thomas E. Wren & Gil G. Noam eds., 1993).

⁴⁴ Mark B. Tappan, *Narrative, Authorship, and the Development of Moral Authority*, 54 *NEW DIRECTIONS FOR CHILD DEV.* 5, 7 (1991).

⁴⁵ Augusto Blasi, *The Development of Identity: Some Implications for Moral Functioning*, in *THE MORAL SELF* 99, 100 (Thomas E. Wren & Gil G. Noam eds., 1993); see Elliott & Gillet, *supra* note 7, at 57 (explaining that moral understanding requires more than an objective understanding of social morals, it "involves the ability to create, to some extent, one's own moral rules and values" and to be able "to justify one's moral values to oneself and to be able to justify them to others").

internalize “rules” as moral norms worthy of compliance for their own sake.⁴⁶ Moreover, emotional knowledge is critical to the “declarative recall of socially relevant facts . . . to ensure adequate social behavior in real-life and real-time circumstances.”⁴⁷

As early as 1838, Dr. Isaac Ray recognized that, in addition to intellectual faculties, an individual must possess “affective faculties,” certain “sentiments, propensities, and passions,” to qualify as “a social and accountable being.”⁴⁸ As Ray explained, “so long as the individual is incapable, by defect of constitution, of feeling the influence of those hopes and fears and all those sentiments and affections that man naturally possesses, an essential element of legal responsibility is wanting, and he is not fully accountable for his actions.”⁴⁹ Accordingly, Ray challenged as inadequate any legal test founded on the principle that an individual qualifies as a moral agent simply by virtue of possessing basic cognitive skills.⁵⁰ He opined that “[t]he error of this reasoning arises in the vulgar habit of estimating the strength and extent of the moral faculties by the ability to go through certain mechanical duties, and provide for the wants and exigencies of the present moment . . . this ability has no connexion with the moral sentiments.”⁵¹

By way of example, although we may be able to teach a pet animal to comply with certain rules, we do not mistake the pet’s obedience as a sign that it has self-identified with the rule and recognizes that it is inherently wrong to engage in certain behavior. To the extent the pet complies, it does so for prudential, not moral reasons, i.e., adverse consequences will be externally imposed if it does not abide.⁵² By

⁴⁶ See Duff, *supra* note 34, at 194 (“An understanding of moral concepts and values requires not just an intellectual recognition of the criteria by which others make moral judgments, but a concern for such values.”) (emphasis in original); Peter Strawson, *Freedom and Resentment*, in FREE WILL 59, 62 (Gary Watson ed., 1982) (opining that the ability to form moral judgments about others’ behavior and to appreciate their moral evaluation of our own behavior is a significant factor in motivating our own behavior).

⁴⁷ Steven W. Anderson et al., *Impairment of Social and Moral Behavior Related to Early Damage in Human Prefrontal Cortex*, 2 NATURE NEUROSCIENCE 1032, 1035 (1999).

⁴⁸ RAY, *supra* note 24, at 183.

⁴⁹ *Id.* at 120.

⁵⁰ Indeed, Dr. Isaac Ray opined that even if an individual possesses sufficient cognitive skills to qualify for gainful employment that does not answer the question of whether the individual qualifies as a moral agent who should be held accountable to the full extent of the law. RAY, *supra* note 24, at 122.

⁵¹ *Id.*; see SHELDON GLUECK, LAW AND PSYCHIATRY: COLD WAR OR ENTENTE CORDIALE 48 n.14 (1962) (drawing a distinction between “superficial rote ‘knowledge’ of the difference between ‘right and wrong’” and the “knowledge rooted in a normally integrated personality, knowledge which reacts to experience with the whole understanding and affective climate”).

⁵² Some might argue that pets on occasion appear to exhibit external behaviors consistent with those we associate with individuals experiencing moral emotions, such as shame and guilt. Although such pets may recognize they have engaged in prohibited conduct, it seems unlikely that they appreciate the moral implications of their conduct.

contrast, if one has an affective appreciation of moral norms, the authority demanding compliance becomes internalized—we comply with moral norms because it would offend our own moral code to do otherwise; failure to comply tends to trigger feelings of shame and guilt as we reflect upon our conduct.⁵³

B. *Moral Development*

Indeed, the essence of instilling children with a moral life is to “get [them] to appreciate the ‘internal’ perspective of morality, rather than regarding moral claims merely as threats, arbitrary decrees, handy devices for manipulating others, or simply obstacles to be avoided if possible.”⁵⁴ As any parent knows, however, the process of instilling children with a moral life is not simply a matter of teaching children the difference between right and wrong and expecting they will conform their conduct accordingly. Before children can effectively participate in our moral dialogue, they must achieve critical stages of moral development that are in turn dependent on certain physical changes occurring in the developing brain.⁵⁵

⁵³ This is not to suggest that an individual does not qualify as a moral agent simply because he does not identify with, or disagrees with, a particular moral norm endorsed by a particular culture or social group. An individual’s capacity for moral agency is not defined by the specific set of values and beliefs that motivates his actions. Instead, the critical issue is whether the individual has the *capacity* to appreciate, identify and internalize moral norms and the *ability* to conform his conduct to them—what Duff refers to as the capacity to participate “in a common form of life.” Duff, *supra* note 34, at 198 (arguing that “participation in a common form of life [is] an essential basis for developing both values and interests of one’s own *and* an understanding of those of others”) (emphasis added). Although the moral agent may profoundly disagree with a moral norm embraced by another culture, he has the capacity to appreciate the significance of the norm to that culture. *Id.* at 194. Because he does not identify with the moral norm he may not feel guilt or shame for having violated it, but he will nevertheless “understand how and why [the community] is blaming and punishing him.” *Id.* at 199. By contrast, a psychopath, for example, is not someone who “rejects more conventional values and emotions in the light of some favoured conception of the good: he is a man who has never come to understand, or to share in, this dimension of human life.” *Id.* at 192.

⁵⁴ Pritchard, *supra* note 31, at 641. Moreover, as Pritchard argues, although children are not able to fully engage in our moral dialogue, they “are encouraged to share the attitudes and concerns of others[, and] as objects of these attitudes and concerns themselves, they gradually become participants in the ways of life of those surrounding them.” *Id.* at 638.

⁵⁵ The following discussion is not meant to challenge, or even comment on, theories of moral development, such as those articulated, for example, by Jean Piaget, Lawrence Kohlberg, and Erik Erikson. The discussion is merely intended to acquaint the reader with the physical changes occurring in the adolescent brain and the potential significance of those changes in terms of providing the necessary foundation upon which the adolescent can build to acquire the skills necessary to achieve certain stages of moral development. For purposes of this Article, the dispositive issue is not whether the individual does in fact acquire a specific set of skills, but whether he has the neurological *capacity* to do so.

Although a child as young as three may begin to recognize a distinction between moral and conventional transgressions,⁵⁶ it is not until adolescence that the brain is sufficiently developed so that the individual has the capacity: (1) for self-evaluation and self-reflection, which is essential to the development of an integrated, inner-directed self with internalized moral norms that are capable of motivating behavior; and (2) to internalize the normative expectations of others and develop meaningful self-regulatory moral emotions. Specifically, during adolescence individuals begin to increase the cognitive resources they have to draw upon because they acquire the ability to automate basic processes; achieve a greater familiarity with the content of knowledge; and develop an increased capacity for working memory that can now hold several different dimensions of a problem.⁵⁷ Given these new cognitive resources the adolescent's mental processes undergo broad conceptual reorganization, and the child subsequently develops, on a rudimentary level, the requisite skills of adult reasoning—abstract thinking, logic and hypothetical reasoning abilities.⁵⁸

Before adolescents can put their hypothetical reasoning skills to work as critical thinkers and effective moral decision-makers, however, they must also develop their metacognitive abilities and achieve a certain sophistication in their epistemic beliefs.⁵⁹ In other words, adolescents must develop the ability to analyze their own thoughts, decipher their own motives, retrace their train of thought and identify errors in their thinking.⁶⁰ This ability to monitor one's own cognitive activity for consistency is critical to the development of a self-concept and the construction of identity.⁶¹ Additionally, as individuals develop the ability to achieve perspective on the self they begin to perceive an increased ability to control their feelings and behavior.⁶²

Moreover, as adolescents become aware of their own cognitive processes and achieve the ability to come to their own understandings, they develop the capacity to engage in relative thought, i.e., they begin to assume responsibility for generating knowledge.⁶³ For the first time

⁵⁶ For purposes of this Article, conventional rules are those derived from custom or convenience and, in contrast to moral norms, can be modified or revoked by the appropriate authoritative institution or individual.

⁵⁷ See Daniel P. Keating, *Adolescent Thinking*, in *AT THE THRESHOLD: THE DEVELOPING ADOLESCENT* 66 (S. Shirley Feldman & Glen R. Elliott eds., 1990); JOHN DACEY & MAUREEN KENNY, *ADOLESCENT DEVELOPMENT* 105, 118 (2d ed. 1997).

⁵⁸ Keating, *supra* note 57, at 66.

⁵⁹ Lisa D. Bendixen et al., *Epistemic Beliefs and Moral Reasoning*, 132 *J. PSYCHOL.* 187, 188 (1998).

⁶⁰ DACEY & KENNY, *supra* note 57, at 106.

⁶¹ Keating, *supra* note 57, at 75.

⁶² DACEY & KENNY, *supra* note 57, at 184.

⁶³ *Id.* at 150.

they have the capacity to see themselves as playing an active role in the problem-solving, decision-making process. By shedding their belief in omniscient authority, adolescents become less likely to simply follow the moral position of authority and will instead commit to constructing their own standards for which they feel personally responsible and accountable.⁶⁴ This sense of personal responsibility is a significant connector between moral cognition and moral action because “it implicates [the] self in action and reflects one’s sense of personal moral worth or self-definition.”⁶⁵ It is at this stage that the individual has developed the capacity to be motivated by moral norms for moral reasons.⁶⁶

It is hardly surprising that all of the aforementioned stages of moral development are dependent on physical and chemical changes that occur in the brain as it matures. As discussed in Part IV, relatively recent advances in neurological research suggest that the underlying skill sets necessary to achieve the defining attributes of a moral agent, selectively identified in Section A above, are highly dependent on the health and development of the human brain. If the criminal law is to retain its moral legitimacy in light of our currently evolving understanding of how neurological disease and defect can influence an individual’s capacity for moral agency, it must re-examine how it determines who is a moral agent properly subject to society’s blaming practices.

III. PLACING THE CRIMINAL LAW’S TEST FOR MORAL AGENCY IN HISTORICAL CONTEXT

While the labels that society has used to describe individuals it deems either not responsible or less morally culpable for their conduct has changed over the past seven centuries, broadly speaking, the tests employed to identify such individuals, and in particular their emphasis on cognitive abilities, continue to influence the ones we use today. Individuals suffering from neurological disorders have been called idiots, lunatics, *non compotes mentis*, insane, imbeciles, and mentally

⁶⁴ Bendixen, *supra* note 59, at 197.

⁶⁵ J. J. Walker & K. H. Henning, *Moral Development in the Broader Context of Personality*, in *THE DEVELOPMENT OF SOCIAL COGNITION* 297, 318 (Suzanne Hala ed., 1997).

⁶⁶ Adolescents must also develop the requisite self-confidence to act in conformity with their internalized moral code. As adolescents mature and have the opportunity to successfully implement their newly acquired self-regulatory and coping strategies, they develop a sense of self-mastery that in turn promotes a growing sense of confidence in their ability to find solutions to difficult problems within themselves. See Lawrence M. Scheier et al., *Dynamic Growth Models of Self-Esteem and Adolescent Alcohol Use*, *J. EARLY ADOLESCENCE*, 178, 182 (2000).

retarded.⁶⁷ It appears that the substantive definitions of these terms, and in particular the concept of idiots and lunatics, were initially developed in the context of the civil law. As far as the criminal law was concerned, prior to the twentieth century these terms were generally used interchangeably to characterize individuals who lacked the requisite capacity to be held morally accountable for their conduct.⁶⁸

This Section traces the civil origins of the terms “idiot” and “lunatic,” examines how their civil definitions were subsequently incorporated into the criminal law, and concludes with a reflection on the twentieth-century English case of John Straffen and what his death sentence reveals about the extent to which decisions to impose the death penalty continue to be influenced by legal tests inherited from twelfth-century property law.

A. *The Civil Origins of the Concept of “Idiocy”*

Initially it appears that the legal significance of being labeled an idiot had nothing to do with the criminal law and everything to do with an individual’s property rights.⁶⁹ As early as 1325, King Edward III of England proclaimed that the King had the right to all the profits from an idiot’s lands and, in return, the King only had the duty to provide the “idiot” with basic necessities.⁷⁰ The Crown did not effectively abandon its profitable rights in the idiots’ estates until the end of the eighteenth century.⁷¹

⁶⁷ See generally SIR JAMES FITZJAMES STEPHEN, 2 A HISTORY OF THE CRIMINAL LAW OF ENGLAND 131 (1883).

⁶⁸ See, e.g., HENRY MONTAGU RANDALL POPE, A TREATISE ON THE LAW AND PRACTICE OF LUNACY 7 (London, Sweet & Maxwell 1890) (1877) (observing that lawyers “use insanity, lunacy, unsoundness of mind, either promiscuously or with artificial distinctions which are continually varying”); RAY, *supra* note 24, at 4-5 (explaining that at common law insanity encompassed both idiots and lunatics).

⁶⁹ This is not to suggest that prior to the criminal law’s adoption of the concept of idiocy, and later lunacy, that English society did not recognize that certain individuals lacked the capacity to participate in society’s moral discourse and thus were not appropriate recipients of certain criminal sanctions. Indeed, as early as the middle of the thirteenth century, Henry Bracton used terms such as “furiosus,” “non sane mentis,” and “mente captus” to describe individuals suffering from severe mental abnormalities and argued that such individuals lacked the requisite will to commit a crime. POPE, *supra* note 68, at 10; see NIGEL WALKER, 1 CRIME AND INSANITY 26, 29 (1968).

⁷⁰ See ANTHONY HIGMORE, A TREATISE ON THE LAW OF IDIOCY AND LUNACY 13 (1822). Specifically, the PREOGATIVA REGIS, enacted in approximately 1325, drew a distinction between those who were idiots from birth and those who once had their “wit and memory” but subsequently lost it. 17 Edw. 2, cc 9 & 10 (appx. 1325). The latter came to be known as “lunatics.” See POPE, *supra* note 68, at 11 (noting that “lunatic” was first used as a legal term in 30 Hen. 8, which was enacted between 1541 and 1542).

⁷¹ W. S. HOLDSWORTH, A HISTORY OF ENGLISH LAW VI 261-62 (1903). Holdsworth notes

Given that the individual's property rights hinged on the determination, it is hardly surprising that the legal test for mental abnormalities that developed was narrowly drawn and limited to an evaluation of basic cognitive skills. Sir Anthony Fitzherbert is credited with articulating the first comprehensive legal test for idiocy in 1534. According to Fitzherbert, an idiot is one "that shall be said to be a sot and idiot from birth . . . who cannot count or number twenty, and tell who was his father or mother, nor how old he is, so that it may appear that he hath no understanding or reason, what shall be for his profit, or what for his loss; but, if he have sufficient understanding to know and understand his letters, and to read by teaching or information . . . he is not an idiot."⁷²

Building on Fitzherbert's test, in 1590, Henry Swinburne explained that an individual could not be characterized as an idiot if he "had so much knowledge that he can read, or learn to read by instruction and information of others, or can measure a yard of cloth, or name the days of the week, or beget a child . . . or such like, whereby it may appear that he has some right of reason."⁷³

And when John Brydall penned the first legal treatise on mental abnormalities over a hundred years later, his test for mental disease or defect echoed Fitzherbert and Swinburne. Brydall succinctly defined an idiot as one who is "wholly deprived of his reason and understanding."⁷⁴ Indeed, this pithy phrase, which excludes from the definition of idiot all but the most severely mentally impaired, continues to resonate in the law today. Long after the Crown has gotten out of the business of confiscating the idiot's land, Fitzherbert, Swinburne, and Brydall's tests for idiocy, albeit with a "modern" gloss, continue to inform decisions we make today about whom we hold criminally responsible for their conduct and to what extent.

that the government ceased having rights in the idiot's land when the Chancellor assumed jurisdiction over idiots from the Exchequer. *Id.* at 262.

⁷² ANTHONY FITZHERBERT, *THE NEW NATURA BREVIVM* 519 (1677) (1534).

⁷³ HENRY SWINBURNE, *WILLS* VII 72 (1728) (1590). Fitzherbert and Swinburne's tests for idiocy were consistent with what would come to be known as Cartesian dualism, which defines the individual solely by reference to the "mind," i.e., the individual's cognitive abilities, separate and apart from the body. *See, e.g.*, DAMASIO, *supra* note 6, at 251. As will be discussed, however, cognitive skills are but one variable that informs an individual's mental health, behavior and conduct, and cannot be considered in isolation from the "structure and operation of a biological organism" as a whole. *Id.*

⁷⁴ JOHN BRYDALL, *NON COMPOS MENTIS: OR THE LAW RELATING TO NATURAL FOOLS, MAD-FOLKS, AND LUNATICK PERSONS* 6 (1700).

B. *Applying the Civil Test for Idiocy to the Criminal Law*

Lord Coke, in 1644, was one of the first legal scholars to explicitly apply the Fitzherbert-Swinburne test for idiocy to the criminal law. Echoing the definition of idiocy that had been formulated under civil law, Coke opined that an offender should be held criminally responsible unless he suffers from a total perversion or absence of his intellectual faculties, “a totall deprivation of memorie.”⁷⁵ During the course of the next century Coke’s test for criminal responsibility evolved into an assessment of whether the defendant had the cognitive ability to objectively distinguish between good and evil. Justice Tracey’s jury instructions in *Rex. v. Edward Arnold*⁷⁶ are often cited as the classic formulation of this test. As Judge Tracey explained, the defendant should not be excused unless he is “totally deprived of his understanding and memory, and doth not know what he is doing, no more than an infant, than a brute, or wild beast . . . whether [the evidence] doth show a man who knew what he was doing, and was able to distinguish whether he was doing good, or evil, and understood what he did.”⁷⁷ Because “guilt arises from the mind,” Judge Tracey opined that “[i]f a man be *deprived of his reason*, and consequently of his intention, he cannot be guilty.”⁷⁸

It is not a difficult stretch to go from Judge Tracey’s instructions to the rules articulated approximately a hundred and twenty years later by the M’Naughten court in 1848. Pursuant to the M’Naughten Rules an individual is a moral agent so long as he is not “labouring under such a *defect of reason*, from disease of the mind, as not to know the nature and quality of the act he was doing; or, if he did know it, that he did not know he was doing what was wrong.”⁷⁹ Although less draconian than the wild beast test, the M’Naughten Rules continued to rest on a narrow analysis of basic cognitive functioning.⁸⁰ As Lord Devlin explained almost a hundred years later, “It is reason which makes a man

⁷⁵ 3 E. COKE, INSTITUTES OF THE LAWS OF ENGLAND 962 (1644).

⁷⁶ 16 How. St. Tr. 695 (1724). In *Rex v. Arnold*, the mentally ill defendant was found guilty of shooting and wounding Lord Onslow. Arnold’s death sentence was reduced to life in prison after Lord Onslow intervened. WALKER, *supra* note 69, at 53, 57.

⁷⁷ *Arnold*, 16 How. St. Tr. at 764.

⁷⁸ *Id.* (emphasis added).

⁷⁹ WALKER, *supra* note 69, at 100 (emphasis added).

⁸⁰ Requiring an offender to *know* the nature and quality of the act he committed could conceivably require more than simply an inquiry into an offender’s cognitive capacity if “know” is read broadly. See David Bazelon, *Equal Justice for the Unequal*, Isaac Ray Lectureship Award Series 5-6 (1961). Nevertheless, as Judge Bazelon opines, in practice the analysis has become so constrained because no court has interpreted the phrase to mean anything more than “intellectually comprehend.” *Id.*

responsible to the law. . . . It is what distinguishes him from the animals, which emotional disorder does not; it is what makes him man So it is fitting that nothing other than a defect of reason should give him complete absolution.”⁸¹

1. John Straffen and the Defect of Reason

Straffen’s case in England in 1952 provides an illustration of how the M’Naughten Rules have been applied in practice to exclude those suffering from a diminished emotional, as opposed to cognitive, capacity attributable to a brain defect. By the age of twenty-one, John Straffen had killed at least three young girls.⁸² Just days before his killing spree began an electro-encephalograph (EEG) test showed that Straffen suffered “wide and severe damage to the cerebral cortex” believed to have been caused by an attack of encephalitis in India before the age of six.⁸³ Nevertheless, at trial it was established that Straffen understood killing the girls was wrong from a rule based perspective. Indeed, his expressed reason for the killings was to “annoy the police.”⁸⁴

Medical witnesses testified, however, that because of his brain injury, Straffen lacked the requisite moral understanding. In other words, he did not appreciate *why* killing the girls was wrong.⁸⁵ Although he had the capacity to understand from an intellectual perspective that society considered killing wrong, he did not understand the moral foundations for the social norm. Accordingly, he was outside the community’s moral dialogue; he was not a moral agent capable of being motivated by moral norms for moral reasons. Presumably his primary motivation for complying with society’s moral norms, such as its proscription against killing, was prudential; he would comply so long as he understood that it was in his best interests to do so and he had the ability to select an appropriate course of action.

Nevertheless, Justice Cassels instructed the jury to ask itself simply whether it was

satisfied by the defence that at the time when he did that murder he was insane within the meaning of the criminal law; not that he was

⁸¹ Lord Devlin, *Mental Abnormality and the Criminal Law*, in CHANGING LEGAL OBJECTIVES 71, 85 (Ronald St. J. MacDonald ed., 1963).

⁸² WALKER, *supra* note 69, at 116.

⁸³ Bob Woffinden, *Insane, guilty or neither?*, GUARDIAN UNLIMITED, May 26, 2001, available at <http://www.innocent.org.uk/cases/johnstraffen/index.html> (last visited Oct. 1, 2007).

⁸⁴ WALKER, *supra* note 69, at 116.

⁸⁵ *Id.* at 116-17.

feeble-minded; not that he had a lack of moral sense; not that he had no feeling for the victim or her relatives; not that he had no remorse; . . . but was he insane through a defect of reason caused by disease of the mind, so that either he did not know the nature and quality of his act, or, if he did know it, he did not know it was wrong?⁸⁶

The jury returned a guilty verdict, and Straffen was sentenced to death.⁸⁷

Straffen possessed a sufficient neurological capacity to intellectually understand the difference between right and wrong. As discussed, however, in the next section and highlighted by the classic case of Phineas Gage, possessing the cognitive ability to distinguish right from wrong has very little, if anything to do with the prefrontal cortex—the organ responsible for integrating the emotional and cognitive brain systems necessary for moral thought and moral action.

IV. EVALUATING MORAL CULPABILITY IN THE CONTEXT OF RECENT ADVANCES IN NEUROPSYCHOLOGY

Up to this point, this Article has addressed the qualities and characteristics an individual must possess to qualify as a full moral agent and examined the law's attempt to define moral agency and moral culpability over time. This Article turns now to an overview of recent advances in neurological research, particularly as they pertain to the prefrontal cortex, and analyzes the potential significance of these findings in informing our understanding of an individual's capacity for moral agency.

The law is concerned with a defendant's state of mind. That being said, neurological evidence can be highly probative of a defendant's moral culpability for his conduct. This Part begins with a brief analysis of the relationship between the mind and the brain to assist the reader's understanding of why recent advances in neuroscience should matter to the trier of fact's assessment of a defendant's culpability. It then surveys the range of skills we are coming to understand are influenced or controlled by the prefrontal cortex, most of which are implicated in the qualities and characteristics we associate with moral agency. To

⁸⁶ *Id.*

⁸⁷ *Id.* at 117. The English government subsequently granted Straffen a reprieve from the death sentence. *Id.* Straffen is currently the longest serving prisoner in the United Kingdom. *Inside for Good*, GUARDIAN UNLIMITED, Jan. 14, 2004, <http://www.guardian.co.uk/shipman/Story/0,,1122603,00.html>.

illuminate the significance of these findings, this Part concludes with a brief review of the classic case study of Phineas Gage, the railway worker who suffered a horrific accident that destroyed much of his prefrontal cortex.

A. *Relevance of Neurological Evidence*

The law is concerned with a defendant's mental condition at the time he committed the act, not with the origin or cause of any neurological condition the defendant may have been suffering from at the time,⁸⁸ so explained Lord Devlin in *Regina v. Kemp* in 1956. While such matters may be medically important, Lord Devlin further elaborated that they are of "no importance to the law, which merely has to consider the state of mind [of] the accused . . . not how he got there."⁸⁹ True enough. The question remains, however, what role can neurological evidence play in that assessment?

In *Kemp*, all parties agreed that the defendant suffered from arteriosclerosis that caused the defendant to lose consciousness, and while unconscious he struck his wife with a hammer.⁹⁰ It was conceded that at the time of the act the defendant suffered from a mental condition that rendered him not responsible for his conduct.⁹¹ The only issue before Lord Devlin was whether the defendant suffered from a "disease of the mind." If he did, he could be found "not guilty because insane" and sent to a mental institution; if not, he would be acquitted and released.⁹² The defense argued that the accused did not suffer from a "disease of the mind" because he only had early stage arteriosclerosis. There had been no degeneration of brain cells, only a temporary cutting off of the blood supply to the brain.⁹³ Without degeneration of brain cells, the defense argued the accused was not suffering from a "disease of the mind" and was thus entitled to a complete acquittal.⁹⁴

Lord Devlin correctly rejected the defense's invitation to engage in line drawing with the legal result dependant on a nuanced medical distinction between the different stages of arteriosclerosis.⁹⁵

⁸⁸ *R v. Kemp*, 1 Q.B. 399, 407 (1956); see, e.g., BAVIDGE, *supra* note 26, at 21 ("In coming to understand what the law means by abnormality of mind, we must first take note that the law is concerned with psychological states and abilities, not with brain function.").

⁸⁹ *Kemp*, 1 Q.B. at 407.

⁹⁰ *Id.* at 402.

⁹¹ *Id.*

⁹² *Id.* at 403.

⁹³ *Id.* at 406.

⁹⁴ *Id.*

⁹⁵ *R v. Kemp*, 1Q.B. 399, 407 (1956) ("I should think it would be a matter of great difficulty

Unfortunately, however, Lord Devlin extracted from the limited facts before him an oft quoted general proposition that because the law is concerned with the mind and not the brain, “the condition of the brain is irrelevant.”⁹⁶ While it is true that the law is concerned with the state of mind of the accused, it does not follow that the condition of the brain is irrelevant to the assessment of a defendant’s moral culpability for his conduct, an issue not before Lord Devlin in *Kemp*.⁹⁷ Indeed, as the Supreme Court has implicitly recognized in *Atkins* and *Simmons*, the health and development of a defendant’s brain can be relevant in assessing a defendant’s moral culpability for his conduct, at least in the context of distinguishing the worst offenders eligible for the death penalty.⁹⁸

The Supreme Court’s recent rulings tacitly acknowledge what is intuitively obvious—the functioning of the mind cannot be divorced “from the structure and operation of [the] biological organism.”⁹⁹ As neurologist Damasio explains, a functioning mind requires the neurological “ability to display images internally and to order those images in a process called thought.”¹⁰⁰ The neurological research discussed in this section strongly suggests that this ability hinges on the successful integration of brain systems engaged in emotion and decision-making and the management of social cognition and behavior.¹⁰¹ It follows therefore that many individuals of “unsound mind” suffer from neurological damage or defect that has either compromised their intellectual or emotional capacity or their ability to conform their conduct consistent with their emotional and intellectual understanding. Accordingly, if the law is to retain its humanity and moral authority it cannot ignore the complexities of the human brain as

medically to determine precisely at what point degeneration of the brain sets in, and it would mean that the verdict depended upon a doubtful medical borderline.”).

⁹⁶ *Id.*

⁹⁷ Not only had all parties conceded that the accused was not responsible for his conduct, Lord Devlin limited his inquiry to assessing whether the defendant suffered from “a defect of reason.” *Id.* at 408. The concept “defect of reason” strongly suggests an exclusive concern with a defendant’s cognitive capacity. As discussed, however, an individual’s moral culpability for his conduct depends not just on his cognitive capacity, but on his ability to successfully integrate cognitive and emotional knowledge. And, as will be examined in this section, an individual’s ability to integrate the cognitive with the emotional is, at least in part, directly related to the health and development of the brain.

⁹⁸ *Atkins v. Virginia*, 536 U.S. 304, 318-32 (2002); *Roper v. Simmons*, 543 U.S. 551, 569-73 (2005).

⁹⁹ DAMASIO, *supra* note 6, at 250.

¹⁰⁰ DAMASIO, *supra* note 6, at 89. This is not to suggest that images are projected in the brain in one central location. Recent research suggests that “knowledge is recalled in the form of images at many brain sites rather than at a . . . single anatomical theater.” *Id.* at 84.

¹⁰¹ *Id.* at xiii.

it bears on an individual's capacity for moral agency.¹⁰² Recent advances in neuroscience can assist the law in reaching a more robust understanding of how certain neurological conditions are relevant to assessing a defendant's moral culpability.

B. *The Prefrontal Cortex*

The human brain can be understood as a system of three major structural components: (1) the cortex at the top of the brain, which specializes in complex information processing; (2) the midbrain and brain stem, which control basic autonomic responses and primary functions such as feeding, movement, and procreation; and (3) the limbic system, located between the cortex and the midbrain, which "is associated with the emergence of emotion and the development of more complex learning and social behavior."¹⁰³ The following overview of the brain will focus principally on the role that the prefrontal cortex plays in informing an individual's capacity for moral agency.¹⁰⁴

¹⁰² See Roger D. Masters, *Why Study Serotonin, Social Behavior, and the Law?*, in THE NEUROTRANSMITTER REVOLUTION 6-7 (Roger D. Masters & Michael T. McGuire eds., 1994). Although the focus of this article is the potential influence that physical defects can have on an individual's capacity for moral agency, it is conceivable that a chemical imbalance in the brain might also impact an individual's capacity for moral agency. Indeed, it is the biochemical substances called neurotransmitters and neuromodulators, the "liquid nervous system," that enable communication between the billions of cells (neurons) that comprise the brain. C. Ray Jeffery, *The Brain, the Law, and the Medicalization of Crime*, in THE NEUROTRANSMITTER REVOLUTION 165 (Roger D. Masters & Michael T. McGuire eds., 1994); ELKHONON GOLDBERG, THE EXECUTIVE BRAIN: FRONTAL LOBES AND THE CIVILIZED MIND 27-28 (2001). For example, major neurotransmitters such as acetylcholine (ACh) and norepinephrine (NE) are associated with increased emotional and sexual aggression, while serotonin has been associated with decreases in all types of aggression. Jeffery, *supra*, at 165; see JAMES BLAIR et al., THE PSYCHOPATH: EMOTION AND THE BRAIN 32 (2005) [BLAIR, THE PSYCHOPATH] (observing that serotonin has long been implicated in the modulation of aggression). This is potentially significant in terms of evaluating an individual's capacity for moral agency because learning responses that avoid punishment depends upon the arousal of the autonomic nervous system, which in turn creates anxiety and avoidance behaviors. Jeffery, *supra*, at 164. It should hardly be surprising, therefore, that antisocial individuals are often diagnosed with under-aroused autonomic nervous systems. This connection suggests that biochemistry may be relevant in assessing an individual's capacity to function as moral agent in that it may be responsible for triggering (or failing to trigger) those areas in the brain necessary for moral reflection and evaluation before choosing a course of action. The science here, however, is relatively embryonic, and it is unlikely that a biochemical analysis of a defendant's brain will have any probative value on the issue of moral agency for years to come, if ever.

¹⁰³ Masters, *supra* note 102, at 6.

¹⁰⁴ Although not addressed in this Article, it is likely that a defective or deformed limbic system may diminish an individual's capacity for moral agency. The structures that comprise the limbic system are located primarily in the interior of the brain and include the amygdala, an "almond-shaped mass of gray matter in the anterior portion of the temporal lobe." R. J. R. Blair, *Subcortical Brain Systems in Psychopathy: The Amygdala and Associated Structures*, in

The frontal lobes have been described as no less than the “organ of civilization,”¹⁰⁵ and the “ultimate seat of morality.”¹⁰⁶ They are commonly described as performing the role of the chief executive, effectively organizing and harmonizing the disparate functions that occur in different areas of the brain.¹⁰⁷

Although often referred to as simply the frontal lobes, this critical executive function is actually located in just one part of the frontal lobes, the prefrontal cortex (“PFC”).¹⁰⁸ “Of all the structures in the brain, only the prefrontal cortex is embedded in such a richly networked pattern of neural pathways [making it] singularly suited for coordinating and integrating the work of all the other brain structures”¹⁰⁹ Among other things, the prefrontal cortex ties together the cognitive and emotional functions by:

- providing the capacity for insight both into our own mental world (metacognition) and into the mental world of others;¹¹⁰
- processing and expressing affective responses;¹¹¹
- enabling the individual to create a working memory by generating and retaining neural models of his goals and objectives;¹¹²

HANDBOOK OF PSYCHOPATHY 296-97 (Christopher J. Patrick ed., 2006) [hereinafter Blair, *Subcortical Brain Systems*]; see RICHARD RESTAK, *THE BRAIN HAS A MIND OF ITS OWN* 52 (1991). Recent research suggests that amygdala dysfunction is associated with a reduced ability to perceive sadness and fear in others, impaired instrumental learning and a limited facility “to learn the stimulus-reinforcement associations that are crucial for moral socialization.” Blair, *Subcortical Brain Systems, supra*, at 307; see BLAIR, *THE PSYCHOPATH supra* note 102, at 110-11, 139 (amygdala dysfunction has been demonstrated to interfere with socialization because the individual lacks the capacity to learn to avoid actions that cause harm to others).

¹⁰⁵ GOLDBERG, *supra* note 102, at 24 (quoting famed neurologist Alexander Luria).

¹⁰⁶ *Id.* at 139.

¹⁰⁷ See *id.* at 23 (“[L]ike . . . large-scale human organizations, the brain has its CEO, its conductor, its general: the frontal lobes.”); Robert D. Rogers, *The Functional Architecture of the Frontal Lobes: Implications for Research with Psychopathic Offenders*, in HANDBOOK OF PSYCHOPATHY 316 (Christopher J. Patrick ed., 2006) (explaining that the prevailing view is that “the frontal lobes are the site of a broad ‘executive’ system that mediates flexible control of cognitive and motor resources for the attainment of distal goals”).

¹⁰⁸ GOLDBERG, *supra* note 102, at 23.

¹⁰⁹ *Id.* at 36.

¹¹⁰ See GOLDBERG, *supra* note 102, at 135; Rogers, *supra* note 107, at 317. Metacognition is the ability to formulate mental representations of “self,” which in turns leads to the emergence of self consciousness. GOLDBERG, *supra* note 102, at 25-26. It provides the overarching organization for all cognitive functions and is an essential prerequisite to an individual’s ability to formulate goals. *Id.*

¹¹¹ See Rogers, *supra* note 107, at 317.

¹¹² The frontal lobe “constitute[s] an apparatus with the function of forming stable plans and intentions capable of controlling the subject’s subsequent conscious behaviour.” ALEXANDER LURIA, *THE WORKING BRAIN* 198 (1973). Because a healthy prefrontal cortex is able to embed an individual’s objectives into mental content, it enables the individual to construct a basic working memory that has the capacity to hold “separate images for a relatively ‘extended’ period of hundreds to thousands of milliseconds.” DAMASIO, *supra* note 6, at 197; see GOLDBERG,

- orchestrating working memory by selecting the necessary information to resolve a particular problem or issue as well as devising plans of action required to achieve identified objectives;¹¹³
- supporting inhibitory processes;¹¹⁴
- evaluating the success of our actions relative to our objectives;¹¹⁵
- retrieving rule-following and socially adaptive behavior patterns prior to action;¹¹⁶ and
- processing pain.¹¹⁷

The prefrontal cortex is located in the anterior part of the frontal lobes and is divided into three sections: the lateral and the medial prefrontal areas and the orbitofrontal cortex (“OFC”). Although the OFC is one of the least understood regions of the human brain, preliminary research suggests that it is here where the critical foundation is laid that makes possible many of the skills that an individual must acquire in order to function as a full moral agent. For example, it is likely that the OFC mediates contextual control of motivational behavior.¹¹⁸ In other words, it appears that the OFC

supra note 102, at 24-25 (explaining that “[h]uman cognition is forward-looking” and in order to bring something into existence in the future, the brain must first be able to visualize it). Absent a healthy working memory, the individual lacks the capacity to hold images regarding the future consequences of his actions in his consciousness long enough to play a meaningful role in his reasoning strategy and is severely compromised in terms of his ability to execute identified objectives when confronted by distractions and temporary shifts in motivation. DAMASIO, *supra* note 6 at 218-19; Elliott & Gillet, *supra* note 7, at 61.

¹¹³ See GOLDBERG, *supra* note 102, at 24, 74; Elliott & Gillet, *supra* note 7, at 63. To function effectively the prefrontal cortex must be able to identify what information is pertinent to the matter at hand, know where the information is stored within the brain and be able to retrieve it in the proper order. GOLDBERG, *supra* note 102, at 24, 74; Rogers, *supra* note 107, at 317. Additionally, the individual must have the ability to manipulate and recombine internal representations as necessary. GOLDBERG, *supra* note 102, at 25 (observing that in order to create internal representations of the future, an individual must have the capacity not only “to see the world *through* mental representations [but] the ability to work *with* mental representations”) (emphasis in original). The individual’s ability to identify relevant information when confronted with an ambiguous situation profoundly implicates his ability to engage in adaptive decision-making. *Id.* at 80; Rogers, *supra* note 107, at 317.

¹¹⁴ See Rogers, *supra* note 107, at 317. Specifically, volitional control requires the ability to anticipate the consequences of one’s actions and to identify and choose between various courses of action and inaction. GOLDBERG, *supra* note 102, at 141.

¹¹⁵ See GOLDBERG, *supra* note 102, at 24.

¹¹⁶ See Elliott & Gillet, *supra* note 7, at 61 (“Mental content is structured by concepts, and concepts embody rules which dictate correct and incorrect ways to respond to presented information.”); Rogers, *supra* note 107, at 316 (“PFC cells exhibit a high degree of plasticity that promotes flexible links between input and output to facilitate the expression of motivationally appropriate behaviour.”).

¹¹⁷ See Rogers, *supra* note 107, at 317; Adrian Raine & Yaling Yang, *The Neuroanatomical Bases of Psychopathy: A Review of Brain Imaging Findings*, in HANDBOOK OF PSYCHOPATHY 287 (Christopher J. Patrick ed., 2006).

¹¹⁸ Raymond J. Dolan, *The Role of Orbitofrontal Cortex in Transcending the Default Mode of*

modulates optimal decision-making under conditions of uncertainty, allowing individuals to flexibly adapt their behavior as appropriate.¹¹⁹ Additionally, recent research suggests that individuals with a damaged OFC experience behavioral and affective changes characteristic of antisocial personality and psychopathy disorders.¹²⁰

These findings are hardly surprising given Antonio Damasio's long-standing hypothesis that "the OFC engages knowledge related to feelings engendered by similar situations in the past. This information is used to select the action that is likely to be optimally advantageous."¹²¹ Through his research on patients with OFC damage, Damasio has observed that such individuals typically suffer from a diminished capacity to experience those "emotions and feelings [that] have been connected, by learning, to predicted future outcomes of certain scenarios."¹²² To the extent that a damaged or defective OFC compromises the individual's ability to process emotional information, the individual will tend to rely "on immediate, as opposed to future, advantage and fail[] to adjust behavior based on past experience."¹²³

Although individuals whose frontal lobes are not functioning effectively may appear to be "normal," i.e., capable of performing the routine cognitive tasks necessary to function in society, they lack the "inner guide" that is essential if they are to participate in society's moral discourse and be subjected to the full extent of its criminal sanctions for

Behavior, in LINKING AFFECT TO ACTION: CRITICAL CONTRIBUTIONS OF THE ORBITOFRONTAL CORTEX (Geoffrey Schoenbaum et al. eds., forthcoming Dec. 2007) [hereinafter Dolan, *Orbitofrontal Cortex*].

¹¹⁹ M. Marsel Mesulam, *The Role of Orbitofrontal Cortex in Transcending the Default Mode of Behavior*, in LINKING AFFECT TO ACTION: CRITICAL CONTRIBUTIONS OF THE ORBITOFRONTAL CORTEX (Geoffrey Schoenbaum et al. eds., forthcoming Dec. 2007). Specifically, Mesulam argues that the OFC permits the brain to transcend the here and now by providing the capacity for hindsight, prediction and perspective shifting. The OFC, arguably, plays a critical role in human decision-making, therefore, by allowing the brain to simultaneously look backwards to the past and forward into the future.

¹²⁰ Rogers, *supra* note 107, at 319; see GOLDBERG, *supra* note 102, at 139 (describing individuals suffering from orbitofrontal syndrome as possessing poor to nonexistent impulse control, displaying a limited capacity to inhibit the urge for instant gratification, exhibiting a lack of regard for social taboos and legal prohibitions, and seemingly unable to foresee the consequences of their actions).

¹²¹ See Raymond J. Dolan, *On the Neurology of Morals*, 2 NATURE NEUROSCIENCE 927, 928 (1999) (discussing Damasio's "somatic-marker hypothesis") [hereinafter Dolan, *Neurology of Morals*].

¹²² DAMASIO, *supra* note 6, at 174, 211; see A. Bechara et al., *Insensitivity to Future Consequences Following Damage to Human Prefrontal Cortex*, 50 COGNITION 7-15 (1994).

¹²³ Dolan, *Neurology of Morals*, *supra* note 121, at 928. For example, research studies have demonstrated that the ability to experience cognitively generated emotions, such as regret, is substantially, if not entirely, impaired by damage to the OFC. Dolan, *Orbitofrontal Cortex*, *supra* note 118. The inability to experience regret is but one example of how an individual suffering from OFC damage lacks the ability to engage in affective forecasting, i.e., base their future conduct on the basis of past acquired knowledge. *Id.*

transgressions against its moral norms.¹²⁴ Indeed, individuals whose frontal lobes are damaged or under-developed generally possess the ability to exercise most cognitive skills in isolation, such as reading, writing, simple computations, verbal expressions, and movement.¹²⁵ Those same individuals, however, are unable to synthesize these skill sets as they must do in order to perform coherent, goal-directed behavior and be able to anticipate the consequences of their actions.¹²⁶ And even where they do recognize that some courses of action are superior to others, they lack the ability to commit to a particular resolution and follow through when presented with distractions.¹²⁷

In other words, notwithstanding the fact that, on a cognitive level, they can distinguish between right and wrong, they lack the “ability to parlay this knowledge into a socially acceptable course of action.”¹²⁸ This tendency for reckless and imprudent behavior is likely due in substantial part to inferior metacognitive abilities, which leads to deficiencies in self-evaluating attitudes such as self-esteem and pride.¹²⁹

Accordingly, the fact that a defendant, such as Daryl Atkins, might be able to achieve a “passing” score on an I.Q. test says very little, if anything, about the health of the defendant’s frontal lobes and the degree to which he possesses the capacity to function as a moral agent. Indeed, as Damasio explains, “patients with marked abnormalities of social behavior can perform normally on many and even most intelligence tests. . . . The problem here lies with the tests, not with the patients. The tests simply do not address properly the particular functions that are compromised and thus fail to measure any decline.”¹³⁰ In other words, simply because Atkins exhibits a certain reasoning capacity on an I.Q. test does not indicate whether he has the requisite capacity to both synthesize and coordinate these cognitive functions and parlay them into a course of action that he can successfully execute in the face of distractions. Nor does an I.Q. test reveal anything about his capacity for affective understanding, or his ability to understand his own

¹²⁴ See GOLDBERG, *supra* note 102, at 155.

¹²⁵ *Id.* at 116.

¹²⁶ *Id.* at 117, 124; see Anderson, *supra* note 47, at 1032 (discussing research demonstrating that when healthy adults experience damage to certain sectors of the prefrontal cortex that impact their capacity for affective understanding, the damage “produces a severe impairment of decision-making and disrupts social behavior although the patients so affected preserve intellectual abilities and maintain factual knowledge of social conventions and moral rules”); Raine & Yang, *supra* note 117, at 286-87.

¹²⁷ Raine & Yang, *supra* note 117, at 287; BAVIDGE, *supra* note 26, at 20.

¹²⁸ GOLDBERG, *supra* note 102, at 148.

¹²⁹ See Piers Benn, *Freedom, Resentment, and the Psychopath*, 6.1 PHIL., PSYCHIATRY & PSYCHOL. 29, 33-34 (1999) (opining that “prudence concerns itself more with the shape of your life as a whole and the coherence of its narrative.”).

¹³⁰ DAMASIO, *supra* note 6, at 40-41.

thinking let alone that of others.¹³¹ Without these skills a defendant lacks the ability to be consistently motivated by moral norms for moral reasons. The defendant, therefore, is not as morally culpable for his conduct, no matter how heinous, as compared with an individual who commits the same act but who does possess these critical cognitive and affective skills.

1. Phineas Gage

Perhaps the most well-known example of the impact that damage to the prefrontal cortex can have on an individual's capacity for moral agency is the case of Phineas Gage. Gage was a railway foreman working for the Great Western Railways in 1848.¹³² By all accounts he was "a reliable, well-liked, respected, and organized individual."¹³³ That year Gage became famous when a charge he set accidentally exploded and his tamping iron blew through his face, out the top of his head and landed behind him. Miraculously, Gage survived.¹³⁴ And perhaps even more surprising, after the accident Gage retained "full possession of his reason."¹³⁵ Gage, however, lost something more important on that fateful day. Along with a significant portion of his prefrontal cortex, Gage seemingly lost the capacity to meaningfully participate in society's moral discourse. Although Gage may have retained his reasoning faculties, and thus the cognitive ability to distinguish right from wrong, and presumably achieve a "passing" score on an I.Q. test, the accident had a profound impact on Gage's ability to

¹³¹ Indeed, no matter how they score on an I.Q. test, the mentally retarded are generally "substantially less capable of both abstract reasoning and practical or adaptive functioning than non-retarded adults." Brief of American Psychological Association et al. as Amici Curiae in support of Petitioner at 2, *Atkins v. Virginia*, 536 U.S. 304 (2002) [hereinafter APA *Atkins* Brief]. (The APA originally submitted the brief in *McCarver v. North Carolina*, Mo. 00-8727 (2000), but the Court dismissed the writ of certiorari in *McCarver* as improvidently granted, 533 U.S. 975 (2001), after North Carolina passed legislation prohibiting the execution of the mentally retarded, and the APA subsequently resubmitted the brief in *Atkins*.) The mentally retarded, therefore, have a "diminished capacity to understand the moral and factual consequences of their actions, to control their impulses . . . to make independent decisions without undue influence by others" and to "grasp the feelings, thoughts, and reactions of other people." *Id.* This is not to say that the mentally retarded lack the capacity to care for the interests of others or to be motivated by moral norms. See Arenella, *supra* note 31, at 1615 n.121. They are, however, generally characterized by a diminished capacity to effectively coordinate and synthesize the cognitive and emotional skills necessary to consistently act in accordance with moral norms. *Id.*

¹³² Raine & Yang, *supra* note 117, at 279.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Horrible Accident*, FREE SOIL UNION (Ludlow, VT), Sept. 14, 1848, reprinted in BOSTON POST, Sept. 21, 1848.

function in a socially acceptable manner. Following the accident, he was “garrulous, sexually promiscuous, reckless, unreliable, and irresponsible—essentially a pseudo-psychopathic individual.”¹³⁶ In other words, although Gage continued to possess an intellectual understanding of societal rules and values, after the accident he was unable to emotionally internalize their significance, identify with them and select and implement choices consistent with them. He suddenly lacked the ability to appreciate the future consequences of his decisions and spent the rest of his life homeless and penniless.¹³⁷

Gage’s case, therefore, provides a striking illustration of how neurological damage can leave an individual intellectually intact yet lacking the capacity to function as a full moral agent. By studying Gage scientists in the middle of the nineteenth century recognized that:

[S]omething in the brain was concerned specifically with unique human properties, among them the ability to anticipate the future and plan accordingly within a complex social environment; the sense of responsibility toward the self and others; and the ability to orchestrate one’s survival deliberately, at the command of one’s free will.”¹³⁸

Based upon the essential role we are coming to understand that the prefrontal cortex plays in defining our humanity, it is hardly surprising that a subsequent MRI reconstruction of Gage’s skull showed that the trajectory of the rod selectively damaged his prefrontal cortex, including his orbitofrontal cortex.¹³⁹ Indeed, after decades of studying patients with frontal lobe damage, Antonio Damasio has come to appreciate that although they may retain all other knowledge, they lack “the dispositional knowledge pairing a particular fact with the mechanism to reenact an emotional response. . . . They [can] avail themselves of abundant factual knowledge but [can] not experience a feeling, that is, the ‘knowledge’ of how their bodies ought to behave relative to the

¹³⁶ Raine & Yang, *supra* note 117, at 279.

¹³⁷ Mesulam, *supra* note 119.

¹³⁸ DAMASIO, *supra* note 6, at 10.

¹³⁹ Raine & Yang, *supra* note 117, at 279 (reviewing research conducted by H. Damasio et al., originally published in *The Return of Phineas Gage: Clues About the Brain from the Skull of a Famous Patient*, 264 SCIENCE 1102-5 (1984)). Subsequent research done in 2004 utilizing computer-generated three-dimensional reconstructions of a thin-slice computed tomography (CAT) scan of Gage’s skull confirms Gage suffered significant damage to his left frontal lobe but suggests the injury may not have extended to the contralateral side of brain or affected the ventricular system. Peter Ratiu et al., *The Tale of Phineas Gage, Digitally Remastered*, 21 J. NEUROTRAUMA, 637-43 (2004); see Peter Ratiu & Ion-Florin Talos, *The Tale of Phineas Gage, Digitally Remastered*, 351 NEW ENG. J. MED. e21 (2004), available at <http://content.nejm.org/cgi/content/full/351/23/e21> (last visited Oct. 2, 2007) (providing video illustrations of Gage’s injury).

evoked factual knowledge.”¹⁴⁰

As early as 1848, therefore, scientists had evidence that although an individual can continue to “function” when deprived of the front portions of his brain, those attributes we identify as human, such as compassion towards others, the ability to devise and execute plans and the capacity to appreciate future consequences of one’s actions are seriously compromised or destroyed. Certainly much has been learned since 1848 about the importance of the frontal lobes in defining and regulating human behavior. While much research still remains to be done before we will understand the precise implications of damage to specific areas of the frontal lobes, there is sufficient evidence to suggest that substantial damage to or lack of development of the frontal lobes compromises an individual’s capacity to function as a moral agent. Indeed, the Supreme Court recognized as much in *Simmons* when it held that adolescents were not as culpable for their conduct as adults based on its understanding that the adolescent’s frontal lobes are not as developed as an adult’s, and thus adolescents do not have the same capacity as an adult to appreciate the future consequences of their actions and consistently achieve identified objectives when confronted by distractions.¹⁴¹

V. NEUROPSYCHOLOGY AND THE SUPREME COURT’S DEATH PENALTY JURISPRUDENCE

In 2002 and 2005 in *Atkins* and *Simmons* respectively, the U.S. Supreme Court implicitly recognized that moral culpability requires more than simply being able to distinguish right from wrong; that the extent to which an individual can be held morally accountable for his conduct is also informed by the individual’s emotional capacity to identify with moral norms and the ability to consistently conform his conduct to them. And even more significantly, by relying on recent neurological research to arrive at its holdings, the Court recognized that the health and development of a defendant’s brain is relevant to the assessment of the defendant’s moral culpability for his conduct.

Granted, the issue before the Court in both cases involved only the penalty phase of a criminal trial and addressed only the imposition of our most extreme form of punishment, the death penalty. Nevertheless, the Court’s willingness to consider the implications of recent

¹⁴⁰ DAMASIO, *supra* note 6, at 211.

¹⁴¹ *Roper v. Simmons*, 543 U.S. 552, 569-70 (2005). The prefrontal cortex matures only after lower-order sensory cortices have developed. *Rogers*, *supra* note 107, at 315. Maturation of the PFC continues well into late adolescence. *Id.*

neurological findings as relevant to the assessment of moral culpability has profound implications for the criminal law.¹⁴² Notably, the Court signaled a willingness to engage in a dialogue with the scientific community. Moreover, although the issue presented in *Simmons* and *Atkins* was limited to “adolescents under eighteen” and the “mentally retarded” respectively, the Court’s reasoning cannot logically be so constrained.

This Part begins with an examination of how the Court’s understanding of who qualifies as death eligible has evolved over the past thirty years. The Part then analyzes the role the amici curiae briefs submitted by the American Medical Association et al. (“AMA”) and the American Psychological Association et al. (“APA”) in *Simmons* played in advancing the Court’s appreciation that an offender’s moral blameworthiness may be informed in part by his neurological health and development. The Part concludes with a discussion of psychopathy to illustrate the point that the Supreme Court’s reasoning in *Atkins* and *Simmons* logically extends beyond the mentally retarded and adolescents to other groups of individuals who likewise suffer from neurological damage or defect that implicates their capacity for moral agency.

A. *Narrowing Death Eligibility*

Prior to *Atkins* and *Simmons*, members of the Court acknowledged the relevance of neurological research in shaping its “own judgment” regarding the appropriate application of the death penalty. For example, the plurality in *Thompson v. Oklahoma*¹⁴³ opined that in exercising its ultimate judgment to exclude certain groups from the death penalty, the Court should consider how the neurological capacity of the group’s members impacts their moral culpability for their actions. In light of that assessment the plurality posited that the Court should then determine whether the application of the death penalty to that particular category of individuals “measurably contributes to the social purposes that are served by the death penalty.”¹⁴⁴

At the time *Thompson* was decided, the Court was unable to muster a majority to implement the aforementioned culpability analysis.

¹⁴² The broader implications of the Supreme Court’s rulings with respect to the attribution of guilt and the imposition of punishment (beyond the death penalty) with regards to those individuals who have a diminished capacity for moral agency due to a neurological disease or defect are beyond the scope of this Article.

¹⁴³ 487 U.S. 815 (1988).

¹⁴⁴ *Thompson*, 487 U.S. at 833 (internal citations omitted).

This is hardly surprising given that in 1988 the scientific community's understanding of how the brain impacts behavior was far less advanced than it is today. Indeed, the Court's culpability analysis was essentially limited to citing a 1978 Report of the Twentieth Century Fund Task Force on Sentencing Policy Toward Young Offenders, which opined that "adolescents, particularly in the early and middle teen years, are more vulnerable, more impulsive, and less self-disciplined than adults."¹⁴⁵ The simple anecdotal observation that adolescents are generally less adept at decision-making hardly provides a compelling justification for concluding that such individuals are less morally culpable for their actions than adults. Without an explanation for the observed behavior, it could be concluded that adolescents possess the requisite capabilities to qualify as a full moral agent but simply choose not to exercise those capabilities consistently. If that were in fact the case, then there would be no basis for categorically holding that such individuals were not fully culpable for their actions.

By contrast, when the Court decided *Atkins* and *Simmons*, in lieu of simple observed behavioral patterns that provided the basis for the plurality's opinion in *Thompson*, the Court was presented with at least the beginnings of a robust neurological explanation for why both the mentally retarded and adolescents have diminished decision-making capabilities and, more importantly, a diminished capacity to be consistently motivated by moral norms for moral reasons. Influenced at least in part by that research, the Court in *Atkins* and *Simmons* exercised its own judgment and concluded that the mentally retarded and adolescents are categorically less culpable for their conduct than healthy adults. In both cases the Court dutifully recited the "objective indicia" purportedly demonstrating that "the evolving standards of decency that mark the progress of a maturing society" required it to conclude that adolescents and the mentally retarded should be ineligible for the death penalty. As the dissents in both cases demonstrate, however, the "objective indicia" can be readily manipulated to serve competing agendas and thus do not provide a particularly compelling basis for an argument on either side.¹⁴⁶

¹⁴⁵ *Id.* at 834 (internal citations omitted).

¹⁴⁶ On the one hand, at the time both *Atkins* and *Simmons* were decided there were 12 states that did not have the death penalty and 18 states that excluded the relevant class (the mentally retarded or juveniles under 18) either through express provision or judicial interpretation. On the other hand, the change in the number of states that prohibited execution of the relevant class since the Court had previously considered the issue in *Penry v. Lynaugh*, 492 U.S. 302 (1989), and *Stanford v. Kentucky*, 492 U.S. 361 (1989), respectively, was significantly different. While 16 states had abolished the execution of the mentally retarded between *Penry* and *Atkins*, only 5 additional states forbid the practice of executing juveniles under 18 between *Stanford* and *Simmons*.

Tellingly, in her dissent in *Simmons*, Justice O'Connor explained that it was not the Court's analysis of objective indicia that had been dispositive in *Atkins*; rather, it was "the compelling moral proportionality argument against capital punishment of mentally retarded offenders [that] played a *decisive* role in persuading the Court that the practice was inconsistent with the Eighth Amendment."¹⁴⁷ Specifically, she contended that the Court rendered the mentally retarded ineligible for the death penalty because it concluded that given their "proven impairments," it was "highly unlikely, and perhaps impossible, that [the mentally retarded] could act with the degree of culpability necessary to deserve death."¹⁴⁸ Justice O'Connor elaborated that the Court is "not merely a rubber stamp on the tally of legislative and jury actions. Rather, it is an integral part of the Eighth Amendment inquiry—and one that is entitled to independent weight in reaching our ultimate decision."¹⁴⁹ Accordingly, although she dissented in *Simmons*, Justice O'Connor agreed with the analytical framework articulated by the majority in both *Atkins* and *Simmons*, namely that "the Constitution contemplates that in the end our own judgment will be brought to bear on the question of the acceptability of the death penalty under the Eighth Amendment."¹⁵⁰

To understand the broader implications of the Court's specific holdings exempting certain categories of individuals with diminished capacities from the death penalty, one must look at the scientific data it utilized, the conclusions it drew from that data and finally the similarities between the information the Court relied upon and our emerging understanding concerning the diminished capacity of other individuals who fall outside the narrow definition of adolescents and the mentally retarded.

B. *Influence of Amici Curiae in Roper v. Simmons*

The *Simmons* Court specifically acknowledged its use of "scientific and sociological studies" introduced by the respondent and the amici briefs submitted by the AMA and APA on his behalf in reaching its conclusion that adolescents possess a "lack of maturity and an underdeveloped sense of responsibility [that] often result[s] in

¹⁴⁷ *Roper v. Simmons*, 543 U.S. 551, 598 (2005) (O'Connor, J., dissenting) (emphasis in original).

¹⁴⁸ *Id.* at 606 (O'Connor, J., dissenting).

¹⁴⁹ *Id.* at 597 (O'Connor, J., dissenting).

¹⁵⁰ *Id.* at 563 (quoting *Coker v. Georgia*, 433 U.S. 584, 597 (1977) (plurality opinion)).

impetuous and ill-considered actions and decisions.”¹⁵¹ Indeed, after reviewing the scientific research presented, the Court held that because adolescents do not have the same cognitive and emotional capacity as adults, they lack the same ability as an adult to be motivated by moral norms for moral reasons and thus are less culpable for failing to conform their conduct accordingly.¹⁵²

The brief submitted by the AMA began by observing that while we all recognize anecdotally that there are differences between the adolescent and adult brains, because of advances in brain imaging technology, we are now beginning to understand that there are neurological explanations for those differences.¹⁵³ Specifically, the AMA explained that those regions of the brain that are associated with “impulse control, regulation of emotions, risk assessment, and moral reasoning” do not achieve full maturity until after the age of eighteen.¹⁵⁴ The MRI studies cited by the AMA demonstrate that the prefrontal cortex, the area of the brain “most associated with impulse control, risk assessment, and moral reasoning” is one of the last areas of the brain to mature and does not become fully developed until early adulthood.¹⁵⁵ The studies showed that in the absence of a developed prefrontal cortex, adolescents rely much more heavily on the amygdala than adults. In contrast to the prefrontal cortex, which, among other things, is associated with response inhibition and emotional regulation, the “amygdala is ‘a neural system that evolved to detect danger and produce rapid protective responses without conscious participation.’ It dictates instinctive gut reactions, including fight or flight responses.”¹⁵⁶ The

¹⁵¹ *Simmons*, 543 U.S. at 568 (internal citations omitted). The Court in *Atkins* likewise had before it relevant information suggesting that the mentally retarded suffer from neurological abnormalities that diminish their capacity for moral agency. See, e.g., APA *Atkins* Brief, *supra* note 131. Unlike in *Simmons*, however, the Court did not acknowledge its review of the scientific research before it. The research clearly had a role in moving the Court to appreciate that moral culpability was more than a factor of simply being able to distinguish right from wrong. But in drafting the opinion, the majority relied instead on simplistic anecdotal observations to make the same points, which, as will be discussed below in Section VII, is a significant reason why the decision has proven largely unworkable. Indeed, even the *Simmons* Court spoke in terms of conclusive generalities about observed behavior without any reference to the neurological developments occurring in the adolescent’s brain, discussed in the amicus briefs filed by the American Medical Association et al. and the American Psychological Association et al. on *Simmons*’ behalf and the significance of those developments on the adolescent’s capacity for moral agency.

¹⁵² *Simmons*, 543 U.S. at 569-70.

¹⁵³ AMA *Simmons* Brief, *supra* note 1, at 2.

¹⁵⁴ *Id.* at 2-3.

¹⁵⁵ *Id.* at 16; see Brief of the American Psychological Association et al. as Amici Curiae in support of Respondent at 9-10, 12, *Roper v. Simmons*, 543 U.S. 551 (2005) [hereinafter APA *Simmons* Brief].

¹⁵⁶ AMA *Simmons* Brief, *supra* note 1, at 12-13 (citing Abigail A. Baird et al., *Functional Magnetic Resonance Imaging of Facial Affect Recognition in Children and Adolescents*, 38 *J.*

brief went on to note that both myelination¹⁵⁷ and pruning,¹⁵⁸ two processes necessary for the brain to function effectively, continue to occur throughout adolescence and notably occur last in the prefrontal cortex.¹⁵⁹

Accordingly, the AMA argued that the healthy adolescent brain profoundly differs from an adult brain in ways that have a direct bearing on the adolescent's ability to engage in moral reasoning and to consistently conform his conduct according to moral norms. The AMA, therefore, implored the Court to recognize that "[a]dolescents cannot be expected to transcend their own psychological or biological capacities."¹⁶⁰ In ruling that because adolescents were, as a general rule, physically incapable of being as morally culpable for their conduct as an adult, and thus categorically ineligible for the death penalty, the Court heeded the AMA's request. The Court, however, did so without citing any of the scientific studies that the AMA and APA relied upon.

Notwithstanding the Court's failure to explicitly reference any of the scientific findings it reviewed, after *Simmons* it is clear that moral culpability analysis requires more than a simple assessment of an individual's basic cognitive skills. By referring to what it termed the "instability and emotional imbalance of young people,"¹⁶¹ the Court drew a connection between a lack of maturity and an underdeveloped sense of responsibility, on the one hand, and the adolescent's failure to consistently conform his conduct to moral norms on the other. Moreover, by emphasizing the relevance of such developmental milestones as identity formation,¹⁶² the Court recognized that without a certain level of emotional development, the adolescent's "irresponsible conduct is not as morally reprehensible as that of an adult," thereby undermining the peneological justification for imposing the death

AM. ACAD. CHILD & ADOLESCENT PSYCHIATRY 1, 1 (1999)).

¹⁵⁷ Through the process of myelination, a fatty white substance coats the brain's axons, which allows electrical impulses to travel faster, thereby speeding up communication with different parts of the brain and rendering it more reliable. AMA *Simmons* Brief, *supra* note 1, at 17; see APA *Simmons* Brief, *supra* note 155, at 11.

¹⁵⁸ In contrast to myelination, pruning involves the removal of excess gray matter, which increases the efficiency of the neural system. AMA *Simmons* Brief, *supra* note 1, at 18-19; see APA *Simmons* Brief, *supra* note 155, at 10-11.

¹⁵⁹ AMA *Simmons* Brief, *supra* note 1, at 17-20.

¹⁶⁰ *Id.* at 20.

¹⁶¹ *Roper v. Simmons*, 543 U.S. 551, 578 (2005).

¹⁶² The Court uses "character" in lieu of the term "identity," but the Court's meaning is made clear with its cite to E. ERIKSON, IDENTITY: YOUTH AND CRISIS (1968). *Simmons*, 543 U.S. at 570. Although the terms are often used interchangeably, Erikson explained that he preferred the term "identity" to refer to an individual's sense of self, specifically the capacity to understand that one is responsible for constructing one's own identity, internalizing a set of values and conforming one's conduct consistent with those values. ERIKSON, *supra*, at 49-50, 155, 324 n.20.

penalty on juveniles.¹⁶³

The Court has therefore unequivocally entered the business of categorically excluding certain groups of individuals from the death penalty where it has concluded that the requisite balancing of mitigating and aggravating factors at the sentencing phase provides insufficient protection against the possibility of executing individuals who are less culpable for their actions because of certain physiological deficiencies. Indeed, as the Court explained in *Atkins*, the very characteristics that render the mentally retarded less morally culpable for their conduct, “may enhance the likelihood that the aggravating factor of future dangerousness will be found by the jury.”¹⁶⁴ The mentally retarded killer, as well as the adolescent killer,¹⁶⁵ and certainly the psychopathic killer all seem potentially more dangerous precisely because we recognize that there is something fundamentally different about these individuals; they seem either unable to affectively understand our moral norms and thus respect and comply with them other than for prudential reasons, or they appear to lack the capacity to consistently conform their conduct to the law and therefore cannot be trusted to do so.

C. *Applying the Reasoning of Atkins and Simmons to the Psychopath*

Although it was surely far from the Court’s mind when it decided *Simmons*, it does not take a tremendous amount of imagination to realize that an individual suffering from neurological damage or defect impacting the frontal lobes will often display traits that we commonly

¹⁶³ *Simmons*, 543 U.S. at 561 (quoting *Thompson v. Oklahoma*, 487 U.S. 815, 835 (1988)). Consistent with *Atkins*, the Court likewise concluded that “the same characteristics that render juveniles less culpable than adults suggest as well that juveniles will be less susceptible to deterrence.” *Simmons*, 543 U.S. at 571. Agreeing with the plurality in *Thompson*, the Court opined that “[t]he likelihood that the teenage offender has made the kind of cost-benefit analysis that attaches any weight to the possibility of execution is so remote as to be virtually nonexistent.” *Id.* at 572 (quoting *Thompson*, 487 U.S. at 837).

¹⁶⁴ *Atkins v. Virginia*, 536 U.S. 304, 321 (2002); see, e.g., *Brewer v. Quarterman*, 127 S. Ct. 1706, 1712 (2007) (“[Defendant’s] mitigating evidence served as a ‘two-edged sword’ because it tended to confirm the State’s evidence of future dangerousness as well as lessen his culpability for the crime.”); *Abdul-Kabir v. Quarterman*, 127 S. Ct. 1654, 1673-74 (2007) (Defendant’s evidence of possible neurological damage would likely “compel” the jury to conclude that the defendant posed a future danger, and that the special issues they were instructed to answer did not provide the jurors the opportunity to “give[] meaningful effect to the mitigating qualities of such evidence.”).

¹⁶⁵ In fact the prosecutor in *Simmons* used the mitigating evidence of age proffered by the defendant against him. Specifically, at sentencing he cautioned the jury to “[t]hink about age. Seventeen years old. Isn’t that scary? Doesn’t that scare you? Mitigating? Quite the contrary I submit. Quite the contrary.” *Simmons*, 543 U.S. at 558.

label as psychopathic.¹⁶⁶ Psychopathy is characterized by “an impairment in performing specific forms of emotional learning” which is “symptomatic of an underlying dysfunction involving specific neural and neurotransmitter systems.”¹⁶⁷ A clinical diagnosis of psychopathy requires the patient to present with both antisocial behaviors as well as emotional dysfunction.¹⁶⁸ As a society we tend to associate the term with individuals who exhibit certain behavioral traits that we find particularly abhorrent and, if left unchecked, could threaten our very existence. Based on the foregoing discussion, however, those traits we find particularly threatening are likely the product of certain neurological damage or defect that has diminished the individual’s capacity to function as a moral agent rather than an informed decision by the individual to renounce society’s fundamental values.

In 1941, Hervey Cleckley published his famous treatise on psychopathy, *The Mask of Sanity*, in which he identified sixteen fundamental characteristics of the psychopath. Many, if not all, of the characteristics Cleckley identified implicate dysfunction of the prefrontal cortex based on our current understanding of the role the PFC plays in orchestrating our conduct in accordance with societal expectations. For example, the traits Cleckley identified include: a lack of responsibility, an inability to experience the moral emotions such as shame and guilt, an inability to make and execute future plans, a lack of appreciation for the impact their behavior has on others and a failure to learn from past mistakes.¹⁶⁹ These traits suggest both a deficiency in higher-order cognitive thinking as well as an inability to process emotional content, which in turn suggests an impaired prefrontal cortex.

Specifically, those individuals society labels as psychopaths tend to lack the ability “to formulate goals and intentions which can be maintained and used to overcome transient or superficially generated impulses.”¹⁷⁰ They are, therefore, physically “unable to respond to the non-obvious, complex, but highly important interpersonal cues to which one must attend if one is to organize ultimately successful patterns of interactive behaviour.”¹⁷¹ This inability to engage in sophisticated

¹⁶⁶ Although to date little scientific evidence has been generated that links psychopathy to prefrontal lobe damage or defect, recent studies “may reflect dysfunction in PFC pathways specifically implicated in emotional processing and regulation.” Rogers, *supra* note 107, at 327. Much more research is necessary to determine whether certain traits that we commonly label as psychopathic are linked to an organic neurological dysfunction.

¹⁶⁷ BLAIR, THE PSYCHOPATH, *supra* note 102, at 28.

¹⁶⁸ James R. Blair, *Dysfunctions of Medial and Lateral Orbitofrontal Cortex in Psychopathy*, in LINKING AFFECT TO ACTION: CRITICAL CONTRIBUTIONS OF THE ORBITOFRONTAL CORTEX (Geoffrey Schoenbaum et al. eds., forthcoming Dec. 2007) [hereinafter Blair, *Dysfunctions*].

¹⁶⁹ HERVEY CLECKLEY, THE MASK OF SANITY, 337-38 (5th. ed. 1976).

¹⁷⁰ Elliott & Gillet, *supra* note 7, at 63, 65.

¹⁷¹ *Id.* at 65.

reasoning suggests a defect in the prefrontal cortex that limits the psychopath's ability to formulate mental representations about the future, severely inhibiting the individual's ability to both identify a proper course of action and commit to it in the face of distractions.¹⁷² In other words, individuals suffering from such a defect lack the ability to consistently conform their conduct in response to a commitment to a particular set of motivational values, goals and objectives. The individual's conduct is instead significantly influenced by the most immediate stimuli.

And to the extent that the psychopath is only able to respond to what is salient, he is thus unable to effectively engage in either moral or prudential reasoning.¹⁷³ This is not to suggest that a psychopath is unable to understand moral concepts on an intellectual level. It is generally accepted that psychopathic individuals do conceptually recognize that there are moral norms that govern social behavior.¹⁷⁴ Indeed, psychopaths are often smart, however, "[t]he threshold at which their emotions kick in, when they do, is so high that they appear unflappable, and are, from their self reports, unfeeling and uncaring."¹⁷⁵ In other words, they lack an affective understanding of moral norms; they are unable to understand the "nature and quality" of their acts because they "cannot grasp those emotional and moral aspects which are as much a part of them as their empirical features."¹⁷⁶

Without an affective understanding, moral norms are no different than rules of etiquette—they are simply rules one can choose to follow as a matter of custom and convenience, much like one puts the fork on the left side of the dinner plate and not the right. Lacking the requisite capacity for empathy necessary to affectively appreciate the significance of moral norms, the psychopath is no more motivated to conform his conduct to comply with moral norms than with any social rule or convention.¹⁷⁷ By contrast, healthy adults are readily able to distinguish

¹⁷² Based upon his research of psychopathic individuals conducted at the National Institute of Mental Health, James Blair has observed that psychopaths exhibit problems with "stimulus outcome processing." Blair, *Dysfunctions*, *supra* note 168, at 7. A healthy individual develops aversive responses to inappropriate and immoral conduct. These aversive responses consistently guide the healthy individual away from such conduct when implementing action. By contrast, a psychopathic individual who lacks the benefit of such aversive responses is more likely to engage in instrumental (goal-directed) aggression. *Id.*

¹⁷³ *Id.*

¹⁷⁴ See Benn, *supra* note 129, at 32; Pritchard, *supra* note 31, at 631, 640; Elliott & Gillet, *supra* note 7, at 55, 65-67; see generally Arenella, *supra* note 31, at 1544-1605 (recounting a fictional dialogue between a judge and a defendant displaying psychopathic tendencies).

¹⁷⁵ DAMASIO, *supra* note 6, at 178.

¹⁷⁶ Duff, *supra* note 34, at 192.

¹⁷⁷ Elliott & Gillet, *supra* note 7, at 55-56 (psychopaths are characterized by a failure to internalize moral norms); see Duff, *supra* note 34, at 196-98 (Because the psychopath is unable to "develop a participant understanding" of moral concepts, or "intelligently discuss, criticise, or

between those rules they follow as a matter of social convention and those moral norms that govern our interaction with others, having internalized the latter at an early age and integrated conformity with such norms as a fundamental element of their sense of self.¹⁷⁸

The psychopath's lack of affective understanding, therefore, necessarily precipitates "a lack of engagement in any real moral dialogue with others, and a failure to participate in a shared moral world."¹⁷⁹ Because he lacks the requisite affective understanding, it cannot be said that the psychopath consciously rejects moral values and emotions. He is instead someone "who has never come to understand, or to share in, this dimension of human life. . . . [H]is grasp of values and concepts is *lacking*, not distorted."¹⁸⁰ Accordingly, "we cannot impose on [the psychopath] the duties or expectations we impose on others, or hope to share with him the kinds of relationships we share with others: he does not, and cannot, participate in a common life with us."¹⁸¹ As Piers Benn explained, because psychopaths cannot communicate in a moral dialogue with us, "when we express our anger [towards them], we achieve little more than the cathartic satisfaction of venting spleen."¹⁸² By contrast, an individual who has the capacity to

extend the rules," he lacks the ability to internalize moral norms and thus does not feel personally responsible to such norms.); Benn, *supra* note 129, at 32-33, 35 (Moral norms have no "motivational pull" for the psychopath.). Moreover, even if a psychopath is able to achieve some degree of affective understanding of moral norms, to the extent his cognitive capacity to access lessons from past experiences and build upon them to commit to future courses of conduct is impaired by neurological damage or defect, his ability to consistently conform his conduct consistent with norms is significantly compromised. See Elliott & Gillet, *supra* note 7, at 54 (arguing that "psychopaths have a defect in their cognitive and reasoning structure which relates to the motivational force of moral concerns"); BLAIR, THE PSYCHOPATH, *supra* note 102, at 66 (observing that psychopaths have "difficulties with aspects of moral reasoning").

¹⁷⁸ Indeed, children as young as three have been demonstrated to outperform psychopaths in terms of affective understanding as measured by moral/convention distinction tests. BLAIR, THE PSYCHOPATH, *supra* note 102, at 58-59. Such tests measure an individual's ability to distinguish between moral transgressions that are wrong regardless of whether a rule exists prohibiting the behavior and other behavior that is wrong only because it breaches some rule that authorities have promulgated simply as a matter of social convenience. *Id.*

¹⁷⁹ Benn, *supra* note 129, at 35.

¹⁸⁰ Duff, *supra* note 34, at 192-93 (emphasis in original); see Benn, *supra* note 129, at 29; RAY, *supra* note 24, at 258 (describing such individuals as suffering from "moral mania"). In his 1835 treatise on insanity, J.C. Prichard described the "morally insane" (psychopaths) as those individuals exhibiting "a perversion of the natural feelings, affections, inclinations, temper, habits, moral dispositions and natural impulses, without any remarkable disorder or defect of the intellect or knowing and reasoning faculties and particularly without any insane illusion or hallucination." Elliott & Gillet, *supra* note 7, at 53 (quoting J. C. PRICHARD, A TREATISE ON INSANITY (1835)); see RAY, *supra* note 24, at 169-70 (same).

¹⁸¹ Duff, *supra* note 34, at 199; see Benn, *supra* note 129, at 34-35; BAVIDGE, *supra* note 26, at 50; Pritchard, *supra* note 31, at 642-43.

¹⁸² Benn, *supra* note 129, at 34. Moreover, an individual who lacks the ability to create mental representations about the future is, by definition, impervious to the threat of punishment. Elliott, *supra* note 7, at 63; LAWRIE REZNEK, EVIL OR ILL? JUSTIFYING THE INSANITY DEFENSE

affectively understand and identify with moral norms will understand *why* a society punishes him for violating one of its moral norms, even if the individual rejects the moral norm and does not feel any shame or guilt for having transgressed it.¹⁸³

Paradoxically, therefore, it is the psychopath's fundamental lack of humanity that renders him both terrifying and, to the extent the behavior is informed by neurological damage or defect, less morally culpable for his actions. Instinctively the notion that it is inappropriate to punish such individuals when they flagrantly and callously violate the minimal moral norms we expect all individuals to uphold seems counterintuitive and clearly wrong.¹⁸⁴ But if we are being intellectually honest, we must begin to acknowledge that to the extent such individuals lack the capacity to participate in society's moral discourse, no matter how terrifying and horrific their transgressions may be, they are not as morally culpable for their conduct as an individual who commits the same acts but who does not suffer from any such neurological damage or defect.¹⁸⁵ With the Supreme Court's recognition in *Atkins* and *Simmons* that the physical condition of a defendant's brain can implicate his capacity for moral agency, and thus his culpability for his actions, we must now confront the broader implications of the Court's reasoning as it relates to those individuals who present with similar neurological damage or defect but who do not qualify as either

138 (1997).

¹⁸³ See discussion *supra* note 53.

¹⁸⁴ Indeed, even the drafters of the Model Penal Code sought "to exclude from the concept of 'mental disease or defect' the case of the so-called 'psychopathic personality.'" MODEL PENAL CODE § 4.01 cmt. 6 (Tentative Draft No. 4, 1955). The drafters justified their decision on the basis of their questionable assumption that "the psychopath differs from a normal person only quantitatively or in degree, not qualitatively." *Id.*

¹⁸⁵ This raises the issue, which is beyond the scope of this Article, of what to do with those individuals who suffer from such severe neurological damage that they altogether lack the capacity for moral agency. Such individuals are not appropriate addressees of our criminal sanctions, and yet society must protect itself from its most dangerous predators. See Arenella, *supra* note 31, at 1526 (as a society we cannot "afford to exempt dangerous but morally blameless offenders from criminal liability and punishment unless we are willing to authorize a system of preventive detention that permits involuntary confinement on the basis of *dangerousness alone*") (emphasis in original); REZNEK, *supra* note 182, at 243 (the costs of recognizing psychopathy as a medical condition is too high because "[t]here is no cure in sight, and such offenders are better dealt with by the penal system"); cf. Pritchard, *supra* note 31, at 644 (analogizing to dangerous animals, Pritchard observes that an individual who lacks moral responsibility for his conduct is not free to do whatever he wants, suggesting that the more dangerous the individual, the more protection to which society is entitled.). Of course, in *Foucha v. Louisiana*, 504 U.S. 71, 83 (1992), the Supreme Court held that an individual committed to a mental institution following a verdict of not guilty by reason of insanity can only be held so long as he is both mentally ill *and* dangerous, but no longer. This in turn raises the troublesome issue of whether neurological data can, or should, be used to demonstrate that individuals suffering from certain neurological conditions are by definition dangerous.

“mentally retarded” or an adolescent under eighteen.¹⁸⁶

VI. USING NEUROLOGICAL EVIDENCE TO ASSESS DEATH ELIGIBILITY

A. *Extending Atkins and Simmons*

Towards that end, this Article proposes that either at a pretrial bench hearing or at the sentencing phase of a capital trial,¹⁸⁷ as a threshold issue, the trier of fact should determine whether the defendant has the physical capacity to function as a full moral agent. If the defendant lacks the requisite capacity, he is by definition not as morally culpable for his conduct as someone who is not so impaired. He therefore cannot qualify as one of our worst offenders and is thus ineligible for the death penalty. Once the trier of fact reaches this conclusion, the weighing of aggravating and mitigating evidence becomes irrelevant—a determination has already been made that it would violate the Eighth Amendment’s prohibition against cruel and unusual punishment to execute the defendant.

The Supreme Court has already begun that process with respect to adolescents under eighteen and a subset of individuals the Court characterizes as mentally retarded. This Article simply calls for the logical extension of the Court’s reasoning in *Atkins* and *Simmons* and proposes what the Court has already recognized through its own deliberations in those two cases, namely that neurological evidence can provide valuable information in terms of assessing a defendant’s physical capacity to acquire the skills necessary to qualify as a full moral agent. Specifically, as a preliminary matter either before the trial or at the beginning of the sentencing proceeding, the trier of fact should be presented with neurological evidence to the extent it is useful in evaluating whether a particular defendant’s capacity to integrate his cognitive and emotional brain systems is sufficiently impaired such that his ability to be motivated by moral norms for moral reasons or consistently conform his conduct to them is compromised.¹⁸⁸ Indeed,

¹⁸⁶ Although it is possible that such individuals might include those exhibiting psychopathic characteristics such as those discussed above, it is by no means so limited.

¹⁸⁷ The choice should be left to the states. It should be noted that currently many states have elected to utilize a pretrial proceeding to assess whether a defendant is mentally retarded for purposes of implementing *Atkins*. See, e.g., COLO. REV. STAT. § 18-1.3-1102 (2004). The state of Virginia, by contrast, leaves the issue of a defendant’s mental retardation to be decided by the jury as part of the sentencing proceeding. VA. CODE ANN. § 19.2-264.3:1.1(C) (2003).

¹⁸⁸ In order, however, for such evidence to be particularly probative, scientists as a field must “evaluate systematically and routinely new information and . . . formulate it in ways such that its implications are understandable to nonbiologists,” which is no easy accomplishment given the

such evidence has the potential to reveal a far more robust picture of a defendant's capacity for moral agency than the limited tests currently employed to identify the "mentally retarded," which by design only reveal the most basic information about a defendant's cognitive capacity.

B. *Trier of Fact's Role as the Ultimate Arbiter of Criminal Responsibility*

Although such evidence is now often submitted as mitigating evidence during the sentencing phase, the suggestion that neurological evidence can be relevant to a trier of fact in its evaluation of an individual's moral culpability for his conduct is fraught with controversy. The law is the ultimate arbiter of criminal responsibility, and the notion that neurological evidence could serve as the basis for a trier of fact concluding that a defendant is ineligible for the death penalty raises a longstanding fear on the part of some that science will ultimately usurp the law's moral function to assess guilt and innocence.¹⁸⁹

This fear is clearly reflected in the scholarship of Lawrie Reznek. Reznek observes that "[t]he decision about guilt or innocence is a legal decision, not a medical one. Guilt, innocence, and responsibility are not diagnostic categories appearing in psychiatric nosologies. They are moral concepts implying that a person ought or not to be punished . . . which is distinct from making a medical diagnosis."¹⁹⁰ Likewise, Norman Finkel has complained that "'pop' psychologists and some

individualized structure of the scientific community. Michael T. McGuire, *Biology and the Law*, in *THE NEUROTRANSMITTER REVOLUTION* 22 (Roger D. Masters & Michael T. McGuire eds., 1994).

¹⁸⁹ The promulgation of the M'Naughten Rules in 1843 shortly following the acquittal of Daniel M'Naughten on the basis that he was not responsible for his conduct by reason of mental disease or defect is at least in part a response to such a fear. Justifying their decision to question the judges following the acquittal, the House of Lords explained they were particularly concerned with the "latitude of definition which medical men were apt to attribute to the notion of insanity." WALKER, *supra* note 69, at 97. Admittedly, the use of medical testimony in M'Naughten's case was indisputably problematic. The prosecution presented no medical evidence, and the two key medical experts M'Naughten presented in his defense had never so much as interviewed M'Naughten. Their testimony was based solely on observations they had made while sitting through the trial. *Id.* at 94. The jury was essentially left with nothing to do except make credibility assessments between experts. Confronted with the possibility that its role as the ultimate arbiter of criminal responsibility was in danger of being usurped by the medical profession, the legal community retreated to the simplistic, centuries-old cognitive test as the basis for legal insanity—a test that could be readily implemented without relying on the scientific community to explain the results.

¹⁹⁰ REZNEK, *supra* note 182, at 150-51.

neuropsychologists search for responsibility under the microelectrode tip, in a specific locale, or *in one hemisphere or the other*.¹⁹¹ Irwin Horowitz and Thomas Willging worry that by admitting medical testimony regarding a defendant's mental health the moral underpinnings of the law are in danger of being "washed away in a river of swirling empirical 'reality' . . ."¹⁹² Perhaps this fear is best encapsulated in Lord P. Devlin's simple pronouncement that the criminal law's "concept of illness expands continually at the expense of the concept of moral responsibility."¹⁹³

Indeed, one need look no further than the Supreme Court's recent decision in *Clark v. Arizona*,¹⁹⁴ to uncover the tension between neurological evidence and the potential it has for revealing how our brains function, on the one hand, and the role of the law to assess moral guilt and innocence on the other. So concerned about the encroachment of science into the law's fundamental role, the Court took the extreme position that it was not unconstitutional for a state to prohibit the introduction of evidence that could call into question whether a defendant had the capacity to form the requisite intent to commit the charged crime.¹⁹⁵ Writing for the majority, Justice Souter opined that the use of such evidence could mislead jurors:

Even when a category of mental disease is broadly accepted and the assignment of a defendant's behavior to that category is uncontroversial, the classification may suggest something very significant about a defendant's capacity, when in fact the classification tells us little or nothing about the ability of the defendant to form *mens rea* or to exercise the cognitive, moral, or volitional capacities that define legal sanity. . . . These dangers arise because of the imperfect fit between the questions of ultimate concern to the law and the information contained in a clinical diagnosis.¹⁹⁶

The majority is of course correct that it is the law's role to pass the ultimate moral judgment on an individual's conduct. It is a *non sequitur*, however, to assert, as the majority did, that a defendant's mental disease is of little to no value in assessing his cognitive, moral, and volitional capacities. It is probable that the mental disease is caused, at least in part, by some underlying neurological damage or defect that is conceivably highly probative of the individual's capacity

¹⁹¹ NORMAN J. FINKEL, *INSANITY ON TRIAL* 205 (1988) (emphasis in original).

¹⁹² IRWIN A. HOROWITZ & THOMAS E. WILLGING, *THE PSYCHOLOGY OF LAW: INTEGRATIONS AND APPLICATIONS* 358 (1984).

¹⁹³ LORD P. DEVLIN, *THE ENFORCEMENT OF MORALS* 17 (1959).

¹⁹⁴ 126 S. Ct. 2709 (2006).

¹⁹⁵ *Id.* at 2735-36.

¹⁹⁶ *Id.* at 2734-35.

to form the requisite intent. Whether that diminished capacity is relevant to the assessment of moral guilt is a question for the trier of fact.

It is indisputably the exclusive province of the law to impose criminal sanctions; an individual's legal responsibility for the acts he commits cannot be determined now, nor in the future, exclusively by reference to empirical scientific data. To find a defendant legally responsible is a moral attribution of blame that can only be assigned by a judge or representatives of the community sitting in judgment.¹⁹⁷ As Michael Bavidge observed, "[i]t is a deeply embedded assumption of the law that responsibility is not a scientific matter, nor is its ascription a matter of expertise. . . . There are no experts in responsibility."¹⁹⁸

Reznek and others, including at least one sitting Supreme Court justice, appear, however, to confuse the concept of factual guilt with legal guilt. An individual is factually guilty when his conduct caused the transgression. No matter how horrific the conduct, however, an individual cannot be legally guilty of committing a capital offense if he

¹⁹⁷ In contrast to C. Jeffery who advocates that the use of neurological examinations should replace the concept of moral responsibility and guilt in *Biological Perspectives*, J. CRIM. JUST. EDUC., 291, 303 (1993), this Article advocates the use of neurological evidence as means of strengthening the moral authority of the law by providing the trier of fact in a capital trial with critical information potentially relevant to the assessment of an individual's capacity to participate in society's moral discourse and, thus, based on the Court's reasoning in *Atkins* and *Simmons*, his eligibility for the death penalty. In other words, this Article is not proposing a "neurological defense," i.e., it does not advocate the use of neurological evidence in the guilt phase of the trial in order to provide a causal explanation for the criminal conduct as the basis for an exculpatory defense. Cf. Richard Restak, *Damaged Brain*, SCIENCES, July-Aug. 1992, at 16 (discussing the unsuccessful use of the "neurological defense" by Robert Alton Harris' defense attorneys in 1990, in which they argued that Harris' violent acts were merely the uncontrollable by-product of his damaged brain).

Moreover, the use of neurological evidence as proposed here is merely intended to assist the trier of fact's assessment of a defendant's eligibility for the death penalty and is not meant to undermine the concepts of free will and responsibility. See, e.g., Michael H. Shapiro, *Law, Culpability, and the Neural Sciences*, in THE NEUROTRANSMITTER REVOLUTION 179, 181-82 (Roger D. Masters & Michael T. McGuire eds., 1994) (arguing "that our accumulating knowledge of brain chemistry need not have a broadly destructive effect (and no effect at all on some views) on the usefulness of moral or legal notions of responsibility"). But cf. REZNEK, *supra* note 182, at 20 (rejecting the use of all neurological evidence in the criminal trial for fear of "eliminat[ing] the humanistic concept of the person as a rational being endowed with rights and responsibilities").

¹⁹⁸ See BAVIDGE, *supra* note 26, at 8; FINKEL, *supra* note 191, at 343 ("The 'ultimate issue' of responsibility in our legal system is for the jury to decide . . . [W]e cannot make inferences from behavior or diagnosis to responsibility.") (emphasis in original); G. E. Dix, *Psychological Abnormality As a Factor in Grading Criminal Liability: Diminished Capacity, Diminished Responsibility and the Like*, 62 J. CRIM. L. & CRIMINOLOGY, 332, 332 (1971) (cautioning that although neurological abnormalities have bearing on moral culpability, if the law "is to maintain the community's respect, [it] must grade its condemnation according to the moral turpitude of the offender as the community evaluates it").

is not a moral agent.¹⁹⁹ And more significantly for purposes of this Article, an individual cannot be executed if he is not a full moral agent, i.e., not one of our most morally culpable offenders.

Indeed, the moral efficacy of the criminal law depends upon its ability to distinguish between those who are appropriate addressees of its sanctions and those who are not. Far from undermining the notion of legal responsibility, the law's moral authority is strengthened to the extent that neurological evidence demonstrates that an offender suffers from physical abnormalities that impact his capacity to participate in society's moral discourse to the same degree as a healthy adult. The failure to identify and remove such an offender from the capital sentencing process raises the very real risk of executing individuals who should not have been eligible for the death penalty in the first place due to their severely diminished capacity for moral agency.

C. *Implications of Schriro v. Landrigan*

That being said, as demonstrated by the Supreme Court's recent decision in *Schriro v. Landrigan*,²⁰⁰ the Court not only continues to ignore the logical implications of its ruling in *Atkins* and *Simmons*, in which it relied on neurological research to exclude entire segments of the population from the death penalty, but evinces in its recent death penalty jurisprudence what could at best be characterized as an indifference to the significance of such evidence in assessing a defendant's physical capacity to acquire the skills necessary to qualify as a full moral agent.

Jeffrey Landrigan, who on previous occasions over the span of four years had been convicted of murder and assault and battery with a deadly weapon, was convicted of felony murder in connection with a burglary and sentenced to death. After exhausting his state court remedies, Landrigan filed a petition for writ of habeas corpus claiming that he had not received effective assistance of counsel during the sentencing phase of his capital trial.²⁰¹ Specifically, Landrigan argued that his counsel failed to investigate the existence of mitigating evidence beyond cursory interviews of his birth mother and ex-wife,²⁰²

¹⁹⁹ For purposes of this Article, it is assumed that the defendant is a moral agent. The issue addressed here is the use of neurological evidence to determine whether the defendant has the capacity to function as a *full* moral agent and thus potentially qualify as one of our most morally culpable offenders who is in turn eligible for the death penalty.

²⁰⁰ 127 S. Ct. 1933 (2007).

²⁰¹ *Id.* at 1939.

²⁰² *Id.* at 1949 (Stevens, J., dissenting).

notwithstanding the fact that his counsel had been aware that Landrigan's mother had used alcohol and drugs extensively while she had been pregnant with him and that the psychologist for the defense had advised that psychological testing was necessary to assess whether there were "cognitive or neuropsychological deficits not observed during just an interview."²⁰³

The Ninth Circuit, sitting *en banc*,²⁰⁴ granted Landrigan's request for an evidentiary hearing at which the extent and implication of the physical neurological damage he suffered as a result of fetal alcohol syndrome would be explored.²⁰⁵ The Supreme Court reversed. It characterized Landrigan's mitigation evidence as "weak"²⁰⁶ and opined that "[i]f district courts were required to allow federal habeas applicants to develop even the most insubstantial factual allegations in evidentiary hearings, district courts would be forced to reopen factual disputes that were conclusively resolved in the state courts."²⁰⁷ The majority's characterization of Landrigan's evidence as weak and insubstantial notwithstanding the fact that it strongly suggests Landrigan may suffer from a serious organic brain disorder²⁰⁸ that potentially diminishes his capacity to acquire the requisite skills to qualify as a full moral agent is perplexing. If established, not only should such facts provide powerful mitigating evidence, based on a logical extension of the Court's reasoning in *Atkins* and *Simmons*, the evidence should conceivably render Landrigan ineligible for the death penalty.

Indeed, the majority failed to acknowledge the irony in its willingness to subject Landrigan to the very double-edged sword it warned about, not only in *Atkins* and *Simmons*, but as recently as the month before in *Brewer* and *Abdul-Kabir*.²⁰⁹ Conspicuously failing to acknowledge the likely connection between a serious organic brain disorder and the defendant's extremely violent past and belligerent

²⁰³ *Id.* at 1948 (Stevens, J., dissenting) (quoting defense psychologist Dr. Mickey McMahon).

²⁰⁴ In the interests of full disclosure, when the Ninth Circuit heard the case *en banc* the author was a law clerk for a judge who sat on the panel.

²⁰⁵ *Landrigan v. Schriro*, 441 F.3d 638, 650 (9th Cir. 2006) (*en banc*). Fetal alcohol syndrome or "fetal alcohol spectrum disorders" (FASDs) is "an umbrella term describing the range of effects that can occur in an individual whose mother drank alcohol during pregnancy. These effects include physical, mental, behavioral, and/or learning disabilities with possible lifelong implications." Centers for Disease Control and Prevention, <http://www.cdc.gov/ncbddd/fas/fasask.htm#character> (last visited Aug. 29, 2007). FASDs includes those individuals suffering from "alcohol-related neurodevelopmental disorder (ARND)." *Id.*

²⁰⁶ *Schriro v. Landrigan*, 127 S. Ct. 1933, 1944 (2007).

²⁰⁷ *Id.* at 1940.

²⁰⁸ *Id.* at 1953 (Stevens, J., dissenting).

²⁰⁹ *Abdul-Kabir v. Quarterman*, 127 S. Ct. 1654, 1673-74 (2007); *Brewer v. Quarterman*, 127 S. Ct. 1706, 1706 (2007); *Roper v. Simmons*, 543 U.S. 551, 558 (2005); *Atkins v. Virginia*, 536 U.S. 304, 321 (2002).

behavior at trial, the Court was content to assume that precisely because Landrigan was such a dangerous individual it was not unreasonable to conclude, as the district court had, that even if Landrigan could establish that he physically lacked the neurological capacity to acquire the skills necessary to qualify as a full moral agent, he would have been unable to overcome the aggravating evidence against him.²¹⁰ In other words, it follows from the Supreme Court's holding in *Landrigan* that even if the defendant was not physically capable of qualifying as a full moral agent, and thus by definition not as morally culpable for his conduct as an individual with the capacity to acquire the requisite skills, it would not offend the Eighth Amendment's prohibition against cruel and unusual punishment to execute him. Of course, such a result is inconsistent with the long line of cases previously discussed, which limit the imposition of the death penalty to only the most morally culpable offenders. Moreover, it begs the question of why neurological evidence that directly implicates an offender's capacity for moral agency is highly probative in rendering certain groups of individuals *per se* ineligible for the death penalty, i.e., the mentally retarded and adolescents, and not even compelling enough to justify an evidentiary hearing for the purpose of establishing mitigating evidence on behalf of other offenders, even where the significance of such evidence in assessing the defendant's capacity for moral agency is essentially the same.

VII. IMPLEMENTING *ATKINS V. VIRGINIA* IN THE CASE OF DARYL ATKINS

This brings us full circle to the case of Daryl Atkins, who may or may not be psychopathic, or mentally retarded, or for that matter fit neatly into any other social construct we might create. At the end of the day, however, none of that should matter when the issue is whether it offends the Constitution's prohibition against cruel and unusual punishment to execute him. The dispositive issue is not what label to attach to Daryl Atkins but whether he has the requisite capacity to function as a full moral agent and thus qualify as one of our worst offenders eligible for the death penalty. In determining the ultimate issue, assessing whether Atkins is mentally retarded under Virginia's criminal code is but one limited prong of inquiry. By contrast, neurological evidence pertinent to Atkins' capacity to integrate efficaciously his intellectual and emotional brain systems is likely to be far more probative of Atkins' ability to appreciate society's moral

²¹⁰ *Landrigan*, 127 S. Ct. at 1944.

norms and consistently conform his conduct to them.

This Part begins with a critique of the Supreme Court's decision bearing Atkins' name and, specifically, the Court's failure to appreciate the implications of its reasoning and its corresponding failure to provide the guidance necessary to effectively implement its decision. This section concludes with a closer look at Daryl Atkins as he prepares once again for re-sentencing.

A. *The Shortcomings of Atkins v. Virginia*

In 2002, the Supreme Court held that it violates the Eight Amendment to execute the mentally retarded because as a class they suffer from neurological impairments that the Court decided renders them categorically less culpable for their conduct than a healthy adult who commits the same acts. The Court, however, failed to define "mentally retarded," and, more importantly, it failed to acknowledge why or how the neurological impairments experienced by the mentally retarded render them less culpable for their conduct.

The majority intuitively recognized that the mentally retarded are not full participants in our moral discourse, and thus it is inappropriate to subject them to punishment reserved only for our most culpable offenders. Citing a few journal articles referenced in the amicus brief filed by the American Psychological Association and the American Association of Mental Retardation (AAMR), the Court simply asserted that "[b]ecause of their disabilities in areas of reasoning, judgment, and control of their impulses, [the mentally retarded] do not act with the level of moral culpability that characterizes the most serious adult criminal conduct."²¹¹ The Court, however, failed to take its analysis to the next level and explain *how* the mentally retarded's disabilities impact their reasoning, judgment and impulse control and *why* these deficiencies are relevant to an assessment of their moral culpability.

This failure led the Court to tacitly endorse an approach states could utilize in formulating their own definition of "mental retardation" that has produced results inconsistent with its own reasoning. Specifically, the Court signaled that states could implement its decision by formulating a definition of "mental retardation" that was guided by the definition promulgated by AAMR.²¹² The AAMR, however, narrowly defines the mentally retarded as someone suffering from "significantly subaverage intellectual functioning, existing concurrently

²¹¹ *Atkins*, 536 U.S. at 306.

²¹² *Id.* at 309 n.3, 317 n.22.

with related limitations in two or more of the following applicable adaptive skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work.”²¹³

The problem with this definition in light of the Court’s own reasoning is that its focus is essentially limited to an assessment of an individual’s basic cognitive abilities as reflected by, among other things, an I.Q. score.²¹⁴ Yet, the Court’s reasoning suggests that it contemplated a much broader category of exempted individuals than those who score below a particular number on an I.Q. test. Indeed, the Court implicitly recognized that the mentally retarded are less morally culpable for their conduct because they suffer from a combination of both cognitive *and* emotional deficiencies. Specifically, the Court opined that the mentally retarded are ineligible for the death penalty because of their “diminished capacities to understand and process information, to communicate, to abstract from mistakes and learn from experience, to engage in logical reasoning, to control impulses, and to understand the reactions of others.”²¹⁵ As previously discussed, an individual’s ability to understand and process information, abstract from mistakes, learn from experience, control impulses and appreciate the reactions of others requires both cognitive and emotional development.

The Court’s apparent willingness to let states adopt a definition of mental retardation similar to the one used by the AAMR reflects the Court’s failure to consider the implications of its holding; a failure that ultimately stems from its lack of appreciation for how specific neurological deficiencies contribute to the observed behaviors that it held rendered the mentally retarded categorically less culpable for their conduct.²¹⁶ To demonstrate that this failure produced an unworkable

²¹³ *Id.* at 309 n.3.

²¹⁴ As Justice Scalia correctly observed in his dissent, it takes very little cognitive skills to have an intellectual appreciation of the fact that killing is wrong. *Id.* at 350-51 (Scalia, J., dissenting).

²¹⁵ *Atkins v. Virginia*, 536 U.S. 304, 318 (2002). The Court also held that “the same cognitive and behavioral impairments that make [the mentally retarded] less morally culpable” defeat an argument that the imposition of the death penalty serves any deterrent purposes given that the mentally retarded lack the ability to appreciate the future consequences of their behavior and control their behavior accordingly. *Id.* at 320.

²¹⁶ Additionally, the majority failed to make explicit its underlying premise that in order to be fully culpable for his conduct an offender must possess the requisite capacity, both cognitively and emotionally, to appreciate moral norms and be able to *consistently* conform his conduct in accordance with them. This failure prompted Justice Scalia to engage in a misguided discussion about whether the mentally retarded are “more *disposed* . . . to commit willfully cruel and serious crime than others.” *Id.* at 350 (Scalia, J., dissenting) (emphasis added). The issue is not whether the mentally retarded are more disposed to commit murder and thus should be treated more leniently because it is in their nature (an absurd proposition that Justice Scalia refutes), but rather, when the mentally retarded do commit such an offense, any assessment of their moral culpability

opinion that has precipitated absurd results and wasted valuable resources, one need look no further than the case of Daryl Atkins himself.

B. *Re-Sentencing Daryl Atkins (Again)*

The issue of whether Daryl Atkins is mentally retarded was raised at his first sentencing hearing in 1998,²¹⁷ it was debated at his second sentencing hearing shortly thereafter,²¹⁸ it was the focus of his third sentencing hearing following remand from the U.S. Supreme Court,²¹⁹ and the issue will once again be debated at his fourth sentencing hearing following a remand from the state supreme court in June 2006.²²⁰

In the wake of the Supreme Court ruling bearing Atkins' name, the Virginia legislature passed new legislation defining which individuals qualify as mentally retarded in the context of capital punishment.²²¹ Pursuant to Virginia's Code of Criminal Procedure, an individual is deemed "mentally retarded," and thus ineligible for the death penalty, if he has:

a disability, originating before the age of 18 years, characterized concurrently by (i) significantly subaverage intellectual functioning as demonstrated by performance on a standardized measure of intellectual functioning administered in conformity with accepted professional practice, that is at least two standard deviations below the mean and (ii) significant limitations in adaptive behavior as expressed in conceptual, social and practical adaptive skills.²²²

On remand from the U.S. Supreme Court, Atkins' case became the test ground for the new statute. Both sides have gotten so lost in the absurd minutia of trying to create an air tight test for mental retardation that tracks the language of the statute that the bigger issue of whether Atkins possesses the requisite moral culpability to be subjected to our

must take into account their ability to conform their conduct in accordance with moral norms *in comparison with* an offender who has no such diminished neurological capacities.

²¹⁷ *Atkins v. Commonwealth*, 510 S.E.2d 445, 451-52 (Va. 1999).

²¹⁸ *Atkins v. Commonwealth*, 534 S.E.2d 312, 318-19 (Va. 2000).

²¹⁹ *Atkins v. Commonwealth*, 631 S.E.2d 93, 96 (Va. 2006).

²²⁰ *Id.* at 94-95.

²²¹ 2003 VA. LAWS CH. 1031 (H.B. 1923) (approved April 29, 2003); 2003 VA. LAWS CH. 1040 (S.B. 1239) (approved May 1, 2003).

²²² VA. CODE ANN. § 19.2-264.3:1.1(A) (2003). The assessment of a defendant's adaptive skills "shall be based on multiple sources of information, including clinical interview, psychological testing and educational, correctional and vocational records. The assessment shall include at least one standardized measure generally accepted by the field of psychological testing for assessing adaptive behavior and appropriate for administration to the particular defendant being assessed, unless not feasible." VA. CODE ANN. § 19.2-264.3:1.1(B)(2) (2003).

most extreme punishment has gotten lost along the way. Indeed, Atkins' sentencing hearing following remand has been centered on one number—his I.Q. score.²²³

On his first I.Q. test, administered at the direction of his defense attorney, Atkins scored a 58, placing him well within the category of individuals characterized as mildly mentally retarded.²²⁴ Following remand, Atkins scored 67 and then 74 on tests performed by his defense psychologist. Two days after he completed his last I.Q. test for the defense the prosecution psychologist performed the test again, and this time Atkins scored 76.²²⁵ Given the standard of error only the test administered by the prosecution places Atkins outside the arbitrary cutoff delineating “mental retardation,” and then only by one point.

The fact that Atkins' I.Q. score has increased with successive administrations has very little, if anything, to do with assessing his moral culpability for his conduct a decade earlier.²²⁶ At best an I.Q. score serves as a proxy for an underlying neurological defect (and a proxy that presumably becomes less efficacious with repeat exposure). It is, however, the impact the neurological defect has on the defendant's capacity to acquire the requisite cognitive and emotional skills to qualify as a full moral agent that should be dispositive—something about which an I.Q. test tells us little, particularly when it comes to assessing the defendant's ability to successfully integrate his cognitive and emotional brain systems.

Tellingly, both the defense and prosecution experts agree on one thing; Atkins exhibits characteristics of an individual with antisocial personality disorder.²²⁷ Antisocial personality is hardly a defense in and

²²³ An individual is commonly considered mentally retarded if he receives an I.Q. test score of approximately 70 or below, and because the standard error of measurement for most I.Q. tests is approximately 5, the ceiling may go up to 75. AAIDD, *Definition of Mental Retardation*, http://www.aamr.org/Policies/faq_mental_retardation.shtml (last visited Aug. 29, 2007).

²²⁴ *Atkins v. Commonwealth*, 534 S.E.2d 312, 323 (Va. 2000) (Koontz, J., dissenting) (quoting KAPLAN & SADOCK, *COMPREHENSIVE TEXTBOOK OF PSYCHIATRY* 2598, (Benjamin J. Sadock & Virginia A. Sadock eds., 7th ed. 2000)).

²²⁵ *Atkins v. Commonwealth*, 631 S.E.2d 93, 96 (Va. 2006); St. George, *supra* note 17. At an earlier proceeding the prosecution's psychologist had foregone performing an I.Q. test and concluded that Atkins was not mentally retarded based on his own subjective perception of Atkins' vocabulary and his knowledge of current events. Indeed, because, among other things, Atkins knew that John F. Kennedy was the president in 1961, was able to correctly identify the last two presidents, as well as Virginia's current governor, and could use “sophisticated words” such as “orchestra,” “decimal,” and “parable,” the prosecution's expert opined that Atkins was “of at least average intelligence.” *Atkins*, 534 S.E.2d at 319.

²²⁶ It is hardly surprising that his scores have improved. I.Q. scores have been demonstrated to increase due to factors including, repeat exposure, intellectual stimulation involved in preparing a case, and a structured environment provided by prison that enables the defendant to concentrate more effectively. See, e.g., Adam Liptak, *Inmate's Rising I.Q. Score Could Mean His Death*, N.Y. TIMES, Feb. 6, 2005, at C1.

²²⁷ *Atkins*, 534 S.E.2d at 319.

of itself. Indeed, it is a relatively meaningless clinical diagnosis.²²⁸ That being said, the fact that Atkins displays antisocial behaviors raises at least a significant possibility that he suffers from neurological damage that diminishes his capacity to understand and process information, to communicate, to abstract from mistakes and learn from experience, to engage in logical reasoning, to control impulses, and to understand the reactions of others—in other words, the very characteristics that the Supreme Court has identified as relevant in assessing an individual’s moral culpability for his conduct.

It is unknown whether Atkins in fact suffers from any relevant neurological damage or defect that could diminish his capacity for moral agency. What is clear is the state of Virginia is much more interested in executing Daryl Atkins than it is in finding out whether he qualifies as one of our most culpable offenders. According to the lead prosecutor on his case, Atkins’ “ability to load and to work a gun, to recognize an A.T.M. card and to direct Mr. Nesbitt to withdraw money and to identify a remote area” for the killing is proof positive that he is not mentally retarded and thus eligible for the death penalty.²²⁹ Indeed, the prosecution has even invoked Fitzherbert and Swinburne’s sixteenth-century tests for idiocy, arguing that Atkins should be subject to the death penalty because, among other things, he knows “how many pennies, nickels, dimes and quarters are in a dollar.”²³⁰ If Atkins is able to make change, so the argument goes, it follows that he has the ability to distinguish on an intellectual level between right and wrong and thus is criminally culpable for his conduct.

Yet, as the Supreme Court made clear in *Simmons*, if not explicitly in *Atkins*, possession of such basic cognitive skill sets has little if any relevance when it comes to assessing whether an offender is sufficiently morally culpable for his conduct such that it does not violate the Eighth Amendment’s prohibition against cruel and unusual punishment to execute him. Although the Court may have failed to fully appreciate the implications, its reasoning in both *Atkins* and *Simmons* suggests a much more nuanced and sophisticated neurological analysis is necessary to determine whether an offender’s brain is sufficiently developed and healthy enough such that the offender possesses the requisite cognitive and emotional capabilities to function as a full moral agent.

²²⁸ See, e.g., David T. Lykken, *Psychopathic Personality: The Scope of the Problem*, in HANDBOOK OF PSYCHOPATHY 4 (Christopher J. Patrick ed., 2006) (describing the Diagnostic and Statistical Manual of Mental Disorders’ (DSM-IV) definition of antisocial personality disorder as “about as nonspecific and scientifically unhelpful as diagnosing a sick patient as having a fever or an infectious or a neurological disorder”).

²²⁹ Adam Liptak, *New Challenge for Courts: How to Define Retardation*, N.Y. TIMES, Mar. 14, 2004, at C2.

²³⁰ *Atkins* Brief for Petitioner, *supra* note 13, at 19.

Because, however, *Atkins* is written at a level of generality that fails to explain why the diminished neurological capabilities of the mentally retarded necessarily render them less culpable than a healthy adult who engages in similar conduct, when it comes to sentencing him for the fourth time, instead of actually examining the physical condition of his brain, the parties will likely once again engage in a debate over what abstract label to apply to Daryl Atkins based on how he performs on certain cognitive tests. If, as is likely the case, a jury concludes that Daryl Atkins does not meet the state's statutory definition of mental retardation, Atkins will once again be sentenced to death regardless of whether he was physically capable of functioning as a full moral agent on that evening in August 1996 when Eric Nesbitt's life came to a horrific and violent end.

CONCLUSION

The criminal law's exclusive focus on a narrow set of rudimentary cognitive skills as the only relevant inquiry when assessing an individual's capacity for moral agency is centuries outdated, and, based on recent advances in the neurological sciences, it is quickly becoming clear that it is morally untenable. Yet,

In their zeal to uphold the wisdom of the past . . . the ministers of the law seem to have forgotten that . . . the real dignity and respectability of their profession are better upheld, by yielding to the improvements of the times, and thankfully receiving the truth from whatever quarter it may come, than by turning away with blind obstinacy from every thing that conflicts with long established maxims and decisions.²³¹

Indeed, as President Jefferson explained, "laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths disclosed . . . institutions must advance also, and keep pace with the times."²³²

The law has been slow to credit recent advances in neurological science with much significance, which is attributable to many factors, including the law's inherent institutional inertia, the law's legitimate

²³¹ RAY, *supra* note 24, at 4.

²³² *Furman v. Georgia*, 408 U.S. 238, 409 n.7 (Blackman, J., dissenting) (quoting President Jefferson's letter to Samuel Kercheval, July 12, 1816, in 15 THE WRITINGS OF THOMAS JEFFERSON 40-42 (Memorial ed. 1904)).

concern that its moral functions will be usurped by the scientific community, and the relatively slow progress we have made as a society in understanding how the brain functions, at least as relevant to assessing moral culpability.

Finally in 2002, and more clearly in 2005, the Supreme Court began to signal a change in attitude. Relying on amici briefs submitted by the AMA and APA that reflected recent advances in neurological research, the Court implicitly recognized in *Simmons* that neurological evidence can be useful in assessing individual moral culpability. Although the Court continues to hide behind generalities and anecdotal evidence about certain groups of individuals instead of explicitly recognizing the underlying neurological research, the majority's holding that adolescents are categorically ineligible for the death penalty cannot be divorced from the detailed scientific evidence about the adolescent brain that the Court considered before rendering its decision.

To retain its moral authority the criminal law must expand upon the work the Court tentatively began in *Atkins* and *Simmons*. Specifically, at either a pretrial bench proceeding or the sentencing phase of a capital trial, whichever is appropriate, the trier of fact should have access to neurological evidence (as well as any other potentially relevant evidence such as the results of cognitive tests currently being used to identify the mentally retarded), to assist it with making a threshold determination as to whether the defendant has the requisite capacity to function as a full moral agent and thus is capable of qualifying as one of our worst offenders eligible for the death penalty. To be clear, this Article is not suggesting that neurological evidence can (or should) be used to provide a causal explanation for the defendant's criminal conduct. Despite attempts by some to obfuscate the issue, the import of neurological evidence is not to demonstrate that an individual is predisposed to criminal conduct or that the commission of a crime was somehow inevitable. Instead, this Article posits that neurological evidence can provide critical information about the defendant's *physical capacity* to both cognitively and affectively understand moral norms and consistently conform his conduct to them—i.e., the defendant's capacity to function as moral agent and thus the degree to which society should hold him morally responsible for his conduct.

And in the context of the death penalty, which is reserved for only our most culpable offenders, the consideration of neurological evidence suggesting that a defendant lacks the capacity to qualify as a full moral agent is not only a moral imperative, but a Constitutional one.