

University of Baltimore Law Review

Volume 46 | Issue 2

Article 7

2017

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Recommended Citation

Steiner, Emily M. (2017) "Comments: When Psychology Answers Constitutional Questions: The Eighth Amendment and Juvenile Sentencing," *University of Baltimore Law Review*: Vol. 46 : Iss. 2, Article 7. Available at: http://scholarworks.law.ubalt.edu/ublr/vol46/iss2/7

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WHEN PSYCHOLOGY ANSWERS CONSTITUTIONAL QUESTIONS: THE EIGHTH AMENDMENT AND JUVENILE SENTENCING

Emily M. Steiner*

I. INTRODUCTION

They say it is necessary for me to suffer! What's the object of these senseless sufferings? Shall I know any better what they are for, when I am crushed by hardships and . . . weak as an old man after . . . penal servitude? And what shall I have to live for then?¹

While weighing whether or not to turn himself in for murder and surrender to prison, a 23-year-old law student questions the high premium placed on imprisonment as a rehabilitative measure.² After finally submitting to imprisonment, however, Rodion Raskolnikov comes to understand the value of atoning for his crimes and how his punishment correlates with societal justice.³ The balance struck between an appropriate amount of suffering and society's need for justice is at the heart of Raskolnikov's character development.⁴

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^{1.} FYODOR DOSTOEVSKY, CRIME AND PUNISHMENT 529 (William A. Neilson ed., Constance Garnett trans., 1917) (internal quotation marks omitted).

See id.; Paul C. Squires, Dostoevsky's "Raskolnikov": The Criminalistic Protest, 28 J. AM. INST. CRIM. L. & CRIMINOLOGY 478, 488, 491 (1937) ("[Raskolnikov] was for the time being—immediately following the murders—incapable of reflection.... [H]e was guilty—so he reasoned—only legally. The moral law he had not transgressed.") (emphasis omitted).

^{3.} DOSTOEVSKY, *supra* note 1, at 559 ("[Raskolnikov] did not know that the new life would not be given him for nothing, that he would have to pay dearly for it, that it would cost him great striving, great suffering. But that is the beginning of a new story—the story of the gradual renewal of a man, the story of his gradual regeneration").

^{4.} See Paul C. Squires, Dostoevsky's Doctrine of Criminal Responsibility, 27 J. AM. INST. CRIM. L. & CRIMINOLOGY 817, 826 (1937) ("[T]he grave problem of responsibility cannot be overestimated. It bids the courts to consider the erring man as a whole [However,] '[t]here is no standard by which to measure the soul and

Despite Raskolnikov's imprisonment and accompanying character transformation,⁵ one important question remains unanswered by Fyodor Dostoevsky's novel: at what point does a punishment become excessive when compared to the nature of the crime and the culpability of the offender?⁶ Although Raskolnikov is ultimately grateful for his imprisonment since it provided him the opportunity to repay his debt to society, his all-consuming fear of a punitively lengthy prison sentence prevented him from confessing for months after committing murder." When considering the modern implications of the novel, some scholars have argued that, if Raskolnikov were alive in the United States today, he would still be imprisoned due to the unforgiving nature of the American penal system.⁸ These scholars argue that American prisons have abandoned the concept of rehabilitating offenders, and instead, simply resort to locking up criminals indefinitely.⁹

Although criticism about American sentencing practices is wellfounded,¹⁰ constitutional measures are in place to regulate the concerns of what constitutes a fair punishment.¹¹ Through the Cruel and Unusual Punishment Clause of the Eighth Amendment, American courts must strike a balance between protecting society from criminals and protecting those who are convicted from excessive punishments.¹²

Due to the vague language in the Eighth Amendment,¹³ the meaning of "cruelty" has been a long-standing question of judicial interpretation.¹⁴ Historically, in Eighth Amendment jurisprudence,

5. *See* DOSTOEVSKY, *supra* note 1, at 559.

- 9. *Id.*
- 10. See supra notes 8–9 and accompanying text.
- 11. See U.S. CONST. amend. VIII.

its development."") (quoting FYODOR DOSTOEVSKY, THE HOUSE OF THE DEAD 240 (Constance Garnett trans., 1915)).

^{6.} *See* Squires, *supra* note 4, at 826.

^{7.} *See* DOSTOEVSKY, *supra* note 1, at 529, 545. Before confessing, Raskolnikov believed he would receive no less than twenty years' imprisonment, when in truth he was sentenced to eight years' imprisonment.

^{8.} Ricardo X. Ramos, "Crime and (Cruel and Unusual) Punishment: A Policy Recommendation," 47 REV. DER. P.R. 205, 205 (2008) ("Fyodor Dostoevsky's, protagonist, Rodion Romanovich Raskolnikov, would still find himself in prison had [Crime and Punishment] been written in twenty-first century America. Where Raskolnikov found redemption, he would now find no solace in a criminal justice system that believes not in redemption, but rather damnation.").

^{12.} *Id.* ("Excessive bail shall not be required, nor excessive fines imposed, *nor cruel and unusual punishments inflicted.*") (emphasis added).

^{13.} See id.

^{14.} *E.g.*, Thompson v. Oklahoma, 487 U.S. 815, 821 (1988) (plurality opinion) ("The authors of the Eighth Amendment drafted a categorical prohibition against the

courts have relied upon the values found in American society, labeled "evolving standards of decency," to resolve the ethical questions about proportionality of punishment.¹⁵ In an effort to bring structure and clarity to such a discretionary standard, the Supreme Court has often used categorical classifications to determine whether a punishment should be regarded as disproportionately severe in relation to the crime committed.¹⁶ This categorization has included comparing offenders who kill to those who do not,¹⁷ offenders with mental disabilities to those without disabilities,¹⁸ and adult offenders to juvenile offenders.¹⁹ In the last thirty years, Eighth Amendment jurisprudence has witnessed the most significant evolution within this last category of comparison: adult offenders versus juvenile offenders.²⁰

The question of whether juvenile offenders²¹ should be treated as categorically distinct from their adult counterparts was first presented before the Supreme Court almost thirty years ago in *Thompson v. Oklahoma*,²² where a fifteen-year-old boy named William Wayne Thompson was sentenced to death for his participation in the murder of his former brother-in-law.²³ The Court asked "whether the juvenile's culpability should be measured by the same standard as

infliction of cruel and unusual punishments, but they made no attempt to define the contours of that category. They delegated that task to future generations of judges").

^{15.} Trop v. Dulles, 356 U.S. 86, 100–01 (1958) (plurality opinion) ("[T]he words of the [Eighth] Amendment are not precise, and . . . their scope is not static. The Amendment must draw its meaning from the *evolving standards of decency* that mark the progress of a maturing society.") (emphasis added) (footnote omitted).

^{16.} Thompson, 487 U.S. at 823 ("Justice Powell has repeatedly reminded us of the importance of 'the experience of mankind, as well as the long history of our law, recognizing that there are differences which must be accommodated" (quoting Goss v. Lopez, 419 U.S. 565, 590–91 (1975) (Powell, J., dissenting))).

^{17.} Kennedy v. Louisiana, 554 U.S. 407, 421 (2008) (finding the death penalty to be a disproportionately severe punishment for the crime of rape).

^{18.} Atkins v. Virginia, 536 U.S. 304, 306–07 (2002) (finding the death penalty to be a disproportionately severe punishment for mentally disabled offenders).

^{19.} *See e.g., Thompson*, 487 U.S. at 834–38 (finding that because "adolescents as a class are less mature and responsible than adults," the execution of a person who was under sixteen years of age at the time of the offense is a disproportionately severe punishment).

^{20.} See Trop, 356 U.S. at 100.

^{21.} In the scope of this Comment, the term "juvenile offenders" is used to encompass all offenders under the age of eighteen.

^{22.} Thompson, 487 U.S. at 818–19.

^{23.} *Id.* at 819.

that of an adult,"²⁴ and held that, "adolescents as a class are less mature and responsible than adults."²⁵

To support this conclusion, the plurality relied upon evidence found in state statutes, which overwhelmingly banned minors from partaking in certain activities such as voting, sitting on juries, marrying without parental consent, or purchasing cigarettes.²⁶ The Court framed these statutes as an indication that "the normal [juvenile] is not prepared to assume the full responsibilities of an adult"²⁷ and therefore should not be sentenced as one.²⁸

This landmark holding established a trend of slowly but steadily reducing the culpability of juvenile criminal offenders.²⁹ An unspoken, but important influence in this development was the corresponding trend of growth in scientific research on juvenile brain development.³⁰ Research from the past thirty years indicates that adolescent brains are much further from full adult development than researchers previously understood.³¹ Of particular importance is the delayed development of the brain's frontal lobe, which controls functions such as reasoning, planning, regulating behavior, and personality expression.³² The prefrontal cortex is the last part of the brain to fully develop, and it does not reach maturation until a person's early 20s.³³

27. *Id.* at 825 (alteration in original).

^{24.} *Id.* at 833.

^{25.} *Id.* at 834.

^{26.} *Id.* at 823.

Id. at 838 ("In short, we are not persuaded that the imposition of the death penalty for offenses committed by persons under 16 years of age ... is ... 'nothing more than the purposeless and needless imposition of pain and suffering."" (quoting Coker v. Georgia, 433 U.S. 584, 592 (1977))).

See id. at 836–37; Roper v. Simmons, 543 U.S. 551, 578 (2005); Graham v. Florida, 560 U.S. 48, 79 (2010); Miller v. Alabama, 132 S. Ct. 2455, 2467 (2012).

^{30.} E.g., Elizabeth R. Sowell et al., In Vivo Evidence for Post-Adolescent Brain Maturation in Frontal and Striatal Regions, 2 NATURE NEUROSCIENCE 859, 859 (1999) ("A thorough understanding of human brain development from birth through adolescence to adulthood is essential to our understanding cognitive development, yet relatively little is known about normal brain maturation.").

^{31.} *Id.* at 860 ("[D]orsal, medial and lateral regions of the frontal lobes showed large group differences [between adolescents and adults].").

^{32.} *Id.* ("Neuropsychological studies show that the frontal lobes are essential for such functions as response inhibition, emotional regulation, planning and organization. Many of these aptitudes continue to develop between adolescence and young adulthood.") (footnote omitted).

^{33.} Id.; Press Release, Nat'l Inst. of Mental Health, Imaging Study Shows Brain Maturing (May 17, 2004) [hereinafter Imaging Study], http://www.nimh.nih.gov/news/science-news/2004/imaging-study-shows-brainmaturing.shtml ("[H]igher-order' brain centers, such as the prefrontal cortex, don't fully develop until young adulthood.").

Whether intentional or not, scientific findings on juvenile brain development have infiltrated Eighth Amendment jurisprudence.³⁴ Since 1988, the Supreme Court has increasingly relied on scientific research in support of holding juvenile offenders less culpable than their adult counterparts.³⁵ By examining recent trends in Supreme Court decisions, this Comment will study the steady influence that neuropsychological findings have had on juvenile sentencing reform through the Cruel and Unusual Punishment Clause of the Eighth Amendment.³⁶

Part II of this Comment provides the historical background on how juvenile and adult offenders came to be considered equally culpable within American society.³⁷ Part II also details the scientific research on brain development that has undermined the rationale behind such rhetoric.³⁸ Part III examines Supreme Court decisions that attempt to resolve the question of whether juvenile offenders should be treated as categorically distinct from adult offenders.³⁹ Finally, Part IV proposes viable alternative practices in place of harsh, lengthy prison sentences for juvenile offenders.⁴⁰

II. BACKGROUND

Teenagers, juveniles, adolescents—no matter what term is used the discourse and imagery surrounding this unique group of individuals occupies a conflicted space in American society.⁴¹ On the one hand, juveniles are perceived as naïve, impulsive, easily influenced by their peers, and unable to understand the long-term consequences of their actions.⁴² On the other hand, juveniles are perceived as predatory, and violent, with no capacity for remorse.⁴³ In newspapers, broadcasts, editorials, films, and television series, "it

^{34.} See cases cited supra note 29.

^{35.} See cases cited supra note 29.

^{36.} See infra Parts II–III.

^{37.} See infra Part II.

^{38.} See infra Part II.

^{39.} See infra Part III.

^{40.} See infra Part IV.

^{41.} Stephen J. Morse, *Immaturity and Irresponsibility*, 88 J. CRIM. L. & CRIMINOLOGY 15, 15 (1997).

^{42.} *Id.* ("We see them as wayward youths, as kids gone wrong, but who are nonetheless not 'bad.' This image is of the teen as a victim. They are misguided, immature, insufficiently socialized, but not evil.").

^{43.} *Id.* ("In contrast, we also see teen offenders as hostile predators, the products of unfortunate environments and perhaps heredity, who have little or no human sympathy or regard. This image is of the teen as a full-fledged criminal.").

is not hard to find either image."⁴⁴ These depictions "often drive public policy" and, more often than not, "[t]he image of the teen offender as a criminal seems . . . to predominate."⁴⁵ As a result, the dialogue frequently pushes toward protecting the public from such high-risk, violent offenders by means of lengthy prison sentences.⁴⁶ How this discourse began in American society (and its flawed foundation) is critical to understanding the current state of Eighth Amendment jurisprudence.

A. "Nothing Works" and the Origin of "Tough on Crime" Policies

In 1974, an article on prison reform⁴⁷ became the most influential criminological study of the second half of the twentieth century.⁴⁸ An American sociologist named Robert Martinson conducted a survey of 231 criminal offenders and concluded that rehabilitation programs had zero effect on recidivism.⁴⁹ These findings came to be known as "Nothing Works,"⁵⁰ and they were highly publicized in the media.⁵¹ After touring the country, "debating criminologists," and advising American policy-makers of his empirical findings, Martinson and his research became deeply embedded in American perceptions of criminal offenders.⁵²

Robert Martinson's work completely undermined the idea that rehabilitation efforts were a solid foundation for prison reform.⁵³ Furthermore, the resulting implication was clear: if "nothing works" to rehabilitate criminal offenders, then society has no other option

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^{44.} Id.

^{45.} *Id*.

^{46.} *Id.*

^{47.} Robert Martinson, What Works?—Questions and Answers About Prison Reform, 35 PUB. INT. 22, 25, 49 (1974) ("[I]t is possible to give a rather bald summary of our findings: With few and isolated exceptions, the rehabilitative efforts that have been reported so far have had no appreciable effect on recidivism.... I am bound to say that these data... give us very little reason to hope that we have in fact found a sure way of reducing recidivism through rehabilitation.") (emphasis omitted).

Jerome Miller, *Criminology: Is Rehabilitation a Waste of Time?*, WASH. POST, Apr. 23, 1989, at C3 ("Martinson's views were enthusiastically embraced by the national media, often under the headline, 'Nothing Works!"").

^{49.} Martinson, *supra* note 47, at 24–25.

^{50.} Miller, *supra* note 48.

^{51.} *Id.*

^{52.} Jerome G. Miller, *The Debate on Rehabilitating Criminals: Is It True that Nothing Works?*, PRISON POL'Y INITIATIVE,

http://www.prisonpolicy.org/scans/rehab.html (last visited Dec. 16, 2016).

^{53.} Id.

than to incarcerate offenders to maintain order and safety.⁵⁴ With the reported murder rate in the United States doubling between 1963 and 1973, the concept "that this explosion of street crime must be due to an attitude of permissiveness" was persuasive.⁵⁵ Statistically, "[w]hat looked . . . like permissiveness was more often than not neglect and chaos in a system overcome with an explosion of 'baby-boomers.''⁵⁶ Nevertheless, imprisonment became the knee-jerk reaction to juvenile offenders in the 1980s and early 1990s.⁵⁷ Although there were critics who challenged Martinson's conclusions, his influence persisted and, eventually, spread into juvenile sentencing.⁵⁸ Thus, as a consequence, "[h]arsher sentences [and] warehouse prisons" emerged.⁵⁹

To compound the effect of "nothing works," the arrest rate of juveniles for gun-related homicides reached its peak in 1994.⁶⁰ Researchers began using this statistic to speculate on future crime rates.⁶¹ One theory was based on "the growing number of disadvantaged and under-socialized youth in big cities," deemed "juvenile super-predators."⁶² These individuals were expected "to

^{54.} *Id.* ("Since 'nothing works' in rehabilitating offenders, we must deter and incapacitate them through harsher prison sentences and occasional use of the death penalty.").

^{55.} *Id.* ("The decade from 1963 to 1973 saw reported murders double from 4.5 per 100,000 to 9.07 [per 100,000].").

^{56.} Id.

^{57.} Shelley Zavlek, Planning Community-Based Facilities for Violent Juvenile Offenders as Part of a System of Graduated Sanctions, JUV. JUST. BULL. (Office of Juvenile Justice and Delinquency Prevention, Washington, D.C.), Aug. 2005, at 2–3, https://www.ncjrs.gov/pdffiles1/ojjdp/209326.pdf ("[T]he juvenile violent crime arrest rate rose sharply during the mid-1980s and early 1990s, from 139 arrests per 100,000 youth ages 17 and younger in 1985 to 231 arrests per 100,000 youth in 1994—a 66-percent increase.").

See generally Paul Gendreau & Robert R. Ross, Correctional Treatment: Some Recommendations for Effective Intervention, 34 JUV. & FAM. CT. J. 31 (1983) (challenging the quality of Robert Martinson's research and the conclusion that correctional rehabilitation is ineffective).

^{59.} Miller, *supra* note 52.

Howard N. Snyder, Juvenile Arrests 1999, JUV. JUST. BULL. (Office of Juvenile Justice and Delinquency Prevention, Washington, D.C.), Dec. 2000, at 1, https://www.ncjrs.gov/pdffiles1/ojjdp/185236.pdf ("In 1999, law enforcement agencies in the United States made an estimated 2.5 million arrests of persons under age 18.").

^{61.} FRANKLIN E. ZIMRING, THE CITY THAT BECAME SAFE: NEW YORK'S LESSONS FOR URBAN CRIME AND ITS CONTROL 49 (2012) ("There were two widely held theories to explain the unexpected increase in urban violence, and each was associated with a series of proposals for shifts in crime control policy.").

^{62.} *Id.*

expand at least as fast as the youth population in the 20 years after 1990."⁶³ The projected estimate was as follows:

By the end of this decade there will be a million more people between the ages of fourteen and seventeen than there are now... This extra million will be half male. Six percent of them will become high rate, repeat offenders— 30,000 more young muggers, killers and thieves than we have now. Get ready.⁶⁴

Extrapolating even further, some researchers predicted that "[b]y the year 2010, there will be approximately 270,000 more juvenile superpredators on the streets than there were in 1990."⁶⁵ These calculations led to the consensus that "Americans are sitting atop a demographic crime bomb."⁶⁶ To address the problem of the juvenile super-predator, policy-makers opted to "give the American people what they ha[d] been demanding for years—incarceration for violent and repeat criminals."⁶⁷

Projections of the "juvenile super-predator," along with Martinson's findings, were unfounded.⁶⁸ Martinson conducted his research using a flawed approach and overstated his findings; he even acknowledged these mistakes in 1979.⁶⁹ Regarding the "juvenile super-predator," the numbers were not even close to being accurate.⁷⁰ The failure of these projections, however, did not diminish their effect on American perceptions about juveniles.⁷¹

^{63.} *Id*.

^{64.} Id. (internal quotation marks omitted).

^{65.} Id. at 82.

^{66.} Id.

^{67.} Id.

^{68.} See Snyder, supra note 60, at 1 ("In 1999, for the fifth consecutive year, the rate of juvenile arrests for Violent Crime Index offenses—murder, forcible rape, robbery, and aggravated assault—declined. Specifically, between 1994 and 1999, the juvenile arrest rate ... fell [by] 36%. As a result, the juvenile violent crime arrest rate in 1999 was the *lowest in the decade.*") (emphasis added).

^{69.} Robert Martinson, *New Findings, New Views: A Note of Caution Regarding Sentencing Reform*, 7 HOFSTRA L. REV. 243, 253–54 (1979) ("The very evidence presented in the article indicates that it would have been incorrect to say that [rehabilitative] treatment had *no* effect....I withdraw this conclusion.") (footnote omitted).

^{70.} Compare ZIMRING, supra note 61, at 82 (predicting that from 1990 to 2010 there would be approximately 270,000 more dangerous juvenile offenders on the streets), with Charles Puzzanchera, Juvenile Arrests 2010, JUV. JUST. BULL. (Office of Juvenile Justice and Delinquency Prevention, Washington, DC.), Dec. 2013, at 5, http://www.ojjdp.gov/pubs/242770.pdf (proving that in 2010 the number of juvenile violent crime arrests has been the lowest since 1980).

^{71.} See supra Part II.

The combination of "nothing works" and "juvenile superpredators" led to "tough on crime" policies in the early and mid-1990s.⁷² These policies treated juvenile and adult offenders as equally culpable because charging juveniles as adults effectively "teaches youth a lesson," which promotes deterrence.⁷³ The research and experience of the past fifteen years, however, has demonstrated that these statements are unsubstantiated.⁷⁴

B. Understanding Adolescent Brain Development

In addition to the miscalculations of "nothing works" and "juvenile super-predators," scientific findings have also undermined the rhetoric behind juveniles as violent and dangerous offenders who are incapable of rehabilitation.⁷⁵ To understand juvenile culpability, one must understand the juvenile brain.⁷⁶ In the last thirty years, neuropsychological research on adolescent brain development has expanded considerably, which has changed the way adolescent judgment and decision-making are understood today.⁷⁷

Since 1999, neuroscientists have been using new technologies to study the human brain, and have discovered that adolescent brains are further from full, adult development than previously understood.⁷⁸ Magnetic resonance imaging (MRI) reveals that the frontal lobe undergoes enormous change between early adolescence and young adulthood.⁷⁹ The prefrontal cortex, which is part of the frontal lobe,

^{72.} Richard E. Redding, Juvenile Transfer Laws: An Effective Deterrent to Delinquency?, JUV. JUST. BULL. (Office of Juvenile Justice and Delinquency Prevention, Washington, D.C.), June 2010, at 1–2, https://www.ncjrs.gov/pdffiles1/ojjdp/220595.pdf ("The nationwide policy shift toward transferring juvenile offenders to the criminal court is based largely on the assumption that more punitive, adult criminal sanctions will act as a deterrent to juvenile crime.").

^{73.} *Id.*

^{74.} *Id.* at 2 ("[T]he bulk of the empirical evidence suggests that transfer laws have little or no general deterrent effect.").

Malcolm Ritter & Associated Press, *Experts Link Teen Brains' Immaturity*, Juvenile Crime, ABC NEWS, http://abcnews.go.com/Technology/story?id=3943187 (last visited Dec. 16, 2016).

^{76.} See Mary Beckman, Crime, Culpability, and the Adolescent Brain, 305 SCIENCE 596, 596 (2004), http://users.loni.usc.edu/~thompson/PDF/MBscience.pdf.

^{77.} *See, e.g., Imaging Study, supra* note 33 (finding that "higher-order" brain functions, such as the pre-frontal cortex of the brain's frontal lobe, "don't fully develop until young adulthood").

^{78.} *See* Sowell, *supra* note 30, at 859 ("We had expected brain image analysis to reflect considerable frontal maturation by age 16.").

^{79.} *Id.* at 860 ("[D]orsal, medial and lateral regions of the frontal lobes showed large group differences [between adolescents and adults].").

controls "'executive' functions," such as reasoning, planning, personality expression, emotional regulation, and behavioral inhibition.⁸⁰ This is the last area of the human brain to mature.⁸¹ Frontal lobe development continues at a rapid pace until young adulthood.⁸² Additionally, what constitutes "young adulthood" is not limited to a person's early twenties; studies show that "myelination," which is "a cellular maturational event" in the brain, "begins near the end of the second trimester of fetal development and extends *well into the third decade of life and beyond*."⁸³

Delayed frontal lobe development in adolescent brains provides the foundation for understanding why juveniles commit crimes.⁸⁴ In a study conducted by The MacArthur Foundation,⁸⁵ the results of this delayed development were: short-sighted decision-making, poor impulse control, and vulnerability to peer pressure.⁸⁶

In measuring short-sighted decision-making, the study—which was comprised of adult and adolescent participants—found that adolescents frequently characterized themselves as "less likely to consider the future consequences of their actions" than adults.⁸⁷ Additionally, when subjects "were presented with various choices measuring their preference for smaller, immediate rewards versus larger, longer-term rewards ... adolescents had a lower 'tipping point."⁸⁸

In measuring impulse control, the study found that, "as individuals age, they become less impulsive and less likely to seek thrills."⁸⁹ In a task where the goal was for subjects to solve a puzzle in the least amount of moves possible (with a wrong move resulting in extra moves to undo the mistake), "adolescents took less time to consider their first move, jumping the gun before planning ahead."⁹⁰

^{80.} See Imaging Study, supra note 33.

^{81.} See id.; Sowell, supra note 30, at 859.

See Jay N. Giedd, Structural Magnetic Resonance Imaging of the Adolescent Brain, 1021 ANNALS N.Y. ACAD. SCI. 77 (2004).

^{83.} See Sowell, supra note 30, at 859 (emphasis added).

See Less Guilty by Reason of Adolescence, MACARTHUR FOUND. RES. NETWORK ON ADOLESCENT DEV. & JUV. JUST. 3 [hereinafter Less Guilty], http://www.adjj.org/downloads/6093issue brief 3.pdf.

About Us, MACARTHUR FOUND., https://www.macfound.org/about/ (last visited Dec. 16, 2016) (explaining that the MacArthur Foundation is "one of the nation's largest independent foundations," supporting research on "some of the world's most pressing social challenges, including over-incarceration").

^{86.} Less Guilty, supra note 84, at 2–3.

^{87.} *Id.* at 2.

^{88.} *Id.*

^{89.} *Id.*

^{90.} *Id.* at 2–3.

Finally, the study found that vulnerability to peer pressure decreased from adolescence to adulthood.⁹¹ Risk-taking was essentially "activated" in adolescents by the very presence of peers.⁹² In a computerized car-driving task, "the mere presence of friends increased risk-taking in adolescents and college undergraduates, though not adults."⁹³

The results of this study support the finding that, while most adolescents are close to adults in cognitive abilities of understanding and processing information, they are still less capable than adults in using these abilities to make good decisions.⁹⁴ The lack of experience and susceptibility to social and emotional influences can significantly affect juvenile decision-making.⁹⁵ Although juveniles may be able to distinguish certain behavior as dangerous or irresponsible, intervening causes, such as peer pressure, may prompt adolescents to engage in criminal activity anyway.⁹⁶ These findings illustrate the need to consider the developmental stage of adolescence as a mitigating factor when juveniles face prosecution.⁹⁷

III. PROOF OF THESIS

Despite the growth in neuropsychological research about adolescent brain development, Eighth Amendment jurisprudence initially rejected such findings in American constitutional law.⁹⁸ This reluctance to treat juvenile offenders differently from adult offenders was illustrated in *Stanford v. Kentucky*, where the plurality rejected the claim that the death penalty was unconstitutional as applied to sixteen and seventeen-year-old offenders.⁹⁹

On the issue of adolescents' lack of maturity and lessened culpability, the plurality unequivocally rejected the scientific research cited by petitioner as a potentially mitigating factor against the

^{91.} *Id.* at 3.

^{92.} *Id.* 93. *Id.*

See Margo Gardner & Laurence Steinberg, Peer Influence on Risk Taking, Risk Preference, and Risky Decision Making in Adolescence and Adulthood: An Experimental Study, 41 DEVELOPMENTAL PSYCHOL. 625, 625 (2005).

^{95.} See id.

^{96.} *Id*.

^{97.} Laurence Steinberg & Elizabeth S. Scott, Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty, 58 AM. PSYCHOLOGIST 1009, 1015–16 (2003).

^{98.} *See, e.g.*, Stanford v. Kentucky, 492 U.S. 361, 377–78 (1989), *abrogated by* Roper v. Simmons, 543 U.S. 551 (2005).

^{99.} Id. at 380.

juvenile's culpability.¹⁰⁰ Justice Scalia, writing for the plurality, stated, "The battle must be fought... on the field of the Eighth Amendment; and in that struggle socioscientific, ethicoscientific, or *even purely scientific evidence is not an available weapon*."¹⁰¹

Despite Justice Scalia's assertions that constitutional arguments are uninfluenced by neuropsychological findings, Supreme Court decisions since *Stanford* have increasingly come to rely upon "socioscientific" evidence to diminish juvenile culpability, which has effectively limited juvenile sentences on Eighth Amendment grounds.¹⁰² Whether this reliance occurred deliberately or not, the results were the elimination of the juvenile death penalty,¹⁰³ and juvenile life-without-parole sentences (LWOP).¹⁰⁴

A. Roper v. Simmons and the Juvenile Death Penalty

Research on adolescent brain development had its first significant legal impact in 2005 with the Supreme Court case *Roper v*. *Simmons*,¹⁰⁵ in which the Court found that the imposition of the death penalty for offenders who were under the age of eighteen when they committed their crimes violated the Eighth Amendment.¹⁰⁶ The Court held that imposing the death penalty on juveniles is cruel and unusual punishment disproportionate to the offense when considering a juvenile's level of culpability as a mitigating factor.¹⁰⁷

In concluding that even older adolescents are less culpable than adults,¹⁰⁸ the Court relied on adolescent brain development research and compared the findings to the decision in *Atkins v. Virginia*, which held that the imposition of the death penalty for adults with

^{100.} Id. at 377–78.

^{101.} Id. at 378 (emphasis added).

^{102.} See cases cited supra note 29.

^{103.} Roper, 543 U.S. at 578 ("The Eighth and Fourteenth Amendments forbid imposition of the death penalty on offenders who were under the age of 18 when their crimes were committed.").

^{104.} Graham v. Florida, 560 U.S. 48, 82 (2010) ("The Constitution prohibits the imposition of a life without parole sentence on a juvenile offender who did not commit homicide."); Miller v. Alabama, 132 S. Ct. 2455, 2475 (2012) ("By requiring that all children convicted of homicide receive lifetime incarceration without possibility of parole, regardless of their age and age-related characteristics and the nature of their crimes, the mandatory sentencing schemes before us violate this principle of proportionality, and so the Eighth Amendment's ban on cruel and unusual punishment.").

^{105.} Roper, 543 U.S. at 569, 578.

^{106.} *Id.* at 578.

^{107.} Id. at 564-75.

^{108.} See id. at 571, 574.

diminished mental capacity was unconstitutional.¹⁰⁹ In *Atkins*, the Court held that defendants whose decision-making abilities are impaired by developmental disabilities are less blameworthy than those without impairment.¹¹⁰ In *Roper*, the Court drew parallels to its findings in *Atkins* that mental disability "diminishes personal culpability even if the offender can distinguish right from wrong," and that this "make[s] it less defensible to impose the death penalty as retribution for past crimes and less likely that the death penalty will have a real deterrent effect."¹¹¹

Relying upon the "scientific and sociological studies [on adolescent brain development]... cite[d] [by the respondent],"¹¹² the *Roper* Court referenced three primary differences between adolescents and adults.¹¹³ First, juveniles have "[a] lack of maturity and an underdeveloped sense of responsibility.... [which] often result in impetuous and ill-considered" behavior.¹¹⁴ Second, "juveniles are more vulnerable or susceptible to negative influences and outside pressures, including peer pressure," and are less able to remove themselves from settings that might lead to crime.¹¹⁵ Third, the personalities of juveniles are still forming at this age.¹¹⁶ In support of each of these pronounced differences, the Court cited psychological and scientific research on adolescent behavioral development.¹¹⁷

The Court further emphasized the transitory nature of adolescence in that even psychiatrists are prohibited from diagnosing a patient under the age of eighteen as having antisocial personality disorder because "[i]t is difficult even for expert psychologists to differentiate between the juvenile offender whose crime reflects unfortunate yet transient immaturity, and the rare juvenile offender whose crime reflects irreparable corruption."¹¹⁸

^{109.} Atkins v. Virginia, 536 U.S. 304, 321 (2002).

^{110.} *Id.* at 318.

^{111.} Roper, 543 U.S. at 563 (citing Atkins, 536 U.S. at 318–20).

^{112.} *Id.* at 569.

^{113.} *Id.* at 569–70.

^{114.} Id. at 569 (alteration in original) (quoting Johnson v. Texas, 509 U.S. 350, 367 (1993)).

^{115.} *Id.* (first citing Eddings v. Oklahoma, 455 U.S. 104, 115 (1982); then citing Steinberg & Scott, *supra* note 97, at 1014).

^{116.} *Id.* at 570.

^{117.} *Id.* at 569–70 (first citing Jeffrey Arnett, *Reckless Behavior in Adolescence: A Developmental Perspective*, 12 DEVELOPMENTAL REV. 339, 339 (1992); then citing Steinberg & Scott, *supra* note 97, at 1014; and then citing ERIK H. ERIKSON, IDENTITY: YOUTH AND CRISIS (1968)).

^{118.} Id. at 573.

By overtly relying upon scientific findings to lessen the culpability of juvenile offenders, the rationale of the *Roper* Court directly contrasted with the rationale of the *Stanford* plurality.¹¹⁹ After the abolition of the juvenile death penalty, the next development in Eighth Amendment jurisprudence arose with a challenge to LWOP sentences for juveniles who did not commit or intend to commit homicide.¹²⁰

B. Graham v. Florida and Juvenile LWOP Sentences for Non-Homicide Offenses

In July 2003, when a boy named Terrance Jamar Graham was sixteen years-old, he and three other teenagers attempted to rob a barbecue restaurant in Jacksonville, Florida.¹²¹ The robbery was ultimately unsuccessful, and Graham was charged as an adult offender.¹²² Graham pled guilty under a plea agreement, and the trial court withheld adjudication of guilt.¹²³ Approximately one year later, Graham was arrested again for participating in a home invasion robbery.¹²⁴ After concluding that Graham had violated his probation, the trial court held a sentencing hearing.¹²⁵ The minimum sentence Graham could receive was five years, and the maximum was life imprisonment.¹²⁶ In explaining Graham's sentence, the trial court stated:

And I don't understand why you would be given such a great opportunity to do something with your life and why you would throw it away.... [W]e can't help you any further. We can't do anything to deter you.... I don't see where any further juvenile sanctions would be appropriate.... [T]his is the way you are going to live your life 127

- 124. Id.
- 125. Id. at 55.
- 126. Id. at 55-56.

^{119.} Compare id. at 578 ("The Eighth and Fourteenth Amendments forbid imposition of the death penalty on offenders who were under the age of 18 when their crimes were committed."), with Stanford v. Kentucky, 492 U.S. 361, 380 (1989) ("The battle must be fought... on the field of the Eighth Amendment; and in that struggle socioscientific, ethicoscientific, or even purely scientific evidence is not an available weapon."), abrogated by Roper v. Simmons, 543 U.S. 551 (2005).

^{120.} Graham v. Florida, 560 U.S. 48, 52–53 (2010).

^{121.} Id. at 53.

^{122.} Id. at 53–54.

^{123.} *Id.* at 54.

^{127.} Id. at 56–57 (internal quotation marks omitted).

Seemingly resigned to Graham's character, the trial court sentenced the seventeen-year-old to the maximum sentence authorized by law: life imprisonment without the possibility of parole.¹²⁸ In the course of the case's development, however, the Supreme Court ultimately took a different approach, relying on *Roper*.¹²⁹ Citing the same three justifications from *Roper*,¹³⁰ *Graham* extended *Roper* to protect juvenile non-homicide offenders sentenced to life without parole sentences.¹³¹ In particular, the Court dedicated much analysis to Graham's character and the trial court's finding that Graham's character—at the age of seventeen—was firmly established for the rest of his life.¹³²

Citing "developments in psychology and brain science,"¹³³ the majority concluded that "[j]uveniles are more capable of change than are adults, and their actions are less likely to be evidence of 'irretrievably depraved character' than are the actions of adults."¹³⁴ Furthermore, the Court specifically noted that these scientific findings "continue to show fundamental differences between juvenile and adult minds," such as "parts of the brain involved in behavior control," which "continue to mature through late adolescence."¹³⁵

In analyzing Graham's punishment, the Court noted, "life without parole is 'the second most severe penalty permitted by law,"¹³⁶ and bears strong similarity to a death sentence in that it "alters the offender's life by a forfeiture that is irrevocable" and "deprives the convict of the most basic liberties without giving hope of

^{128.} *Id.* at 57 ("Because Florida has abolished its parole system . . . a life sentence gives a defendant no possibility of release unless he is granted executive elemency.").

^{129.} Id. at 67–69.

^{130.} *Id.* at 68 (*"Roper* established that because juveniles have lessened culpability they are less deserving of the most severe punishments. As compared to adults, juveniles have a 'lack of maturity and an underdeveloped sense of responsibility'; they 'are more vulnerable or susceptible to negative influences and outside pressures, including peer pressure'; and their characters are 'not as well formed.'" (quoting Roper v. Simmons, 543 U.S. 551, 569–70 (2005))).

^{131.} See id. at 82.

^{132.} See id. at 72–73 ("To justify life without parole on the assumption that the juvenile offender *forever* will be a danger to society requires the sentencer to make a judgment that the juvenile is incorrigible. The characteristics of juveniles make that judgment questionable.") (emphasis added).

^{133.} *Id.* at 68 (relying on briefs from both the American Medical Association and the American Psychological Association in support of its assertions).

^{134.} Id. (quoting Roper, 543 U.S. at 570).

^{135.} *Id.* Here, the Court is specifically citing developments in psychology on the delayed frontal lobe development in adolescent brains discussed *supra* in Section II.B. *See* Sowell, *supra* note 30, at 860.

^{136.} Graham, 560 U.S. at 69 (quoting Harmelin v. Michigan, 501 U.S. 957, 1001 (1991)).

restoration¹³⁷ Essentially, the Court declared that a juvenile LWOP sentence "means denial of hope ... that good behavior and character improvement are immaterial" to juvenile offenders.¹³⁸

Additionally, the Court concluded that none of the goals of the penal system are satisfied with the imposition of a juvenile LWOP sentence.¹³⁹ When it comes to deterrence, juveniles' "lack of maturity and underdeveloped sense of responsibility... often result in impetuous and ill-considered actions and decisions,"¹⁴⁰ which means they are "less likely to take a possible punishment into consideration when making decisions."¹⁴¹ Therefore, even when a juvenile does understand the potential consequences of an action, the individual still might not be deterred from action due to the adolescent brain's susceptibility to peer pressure and a lack of behavioral control.¹⁴²

When considering the penological goal of rehabilitation, a juvenile LWOP sentence also fails.¹⁴³ This is because an LWOP sentence rejects the very possibility of rehabilitation.¹⁴⁴ As the Court explains, "[b]y denying the defendant the right to reenter the community, the State makes an irrevocable judgment about that person's value and place in society," and that "judgment is not appropriate in light of a juvenile nonhomicide offender's capacity for change and limited moral culpability."¹⁴⁵ It is the fact that the sentencing judge determined Graham's character to be "incorrigible" at the age of seventeen—thus making him worthy of an LWOP sentence—that the majority found to be Cruel and Unusual Punishment.¹⁴⁶

The Court makes clear that it is the denial of hope of release that distinguishes LWOP sentences from other types of sentences for juvenile offenders.¹⁴⁷ A juvenile "who knows that he or she has no chance to leave prison before life's end has little incentive to become

^{137.} *Id.* at 69–70.

^{138.} Id. at 70.

^{139.} *Id.* at 71–74.

^{140.} *Id.* at 72 (quoting Johnson v. Texas, 509 U.S. 350, 367 (1993)); *see also Less Guilty*, *supra* note 84, at 2–3 (discussing underdeveloped impulse control in adolescents).

^{141.} Graham, 560 U.S. at 72; see also Less Guilty, supra note 84, at 2–3.

^{142.} Graham, 560 U.S. at 68–72.

^{143.} *Id.* at 74.

^{144.} *Id.*

^{145.} *Id.*

^{146.} *Id.* at 76 ("In Graham's case the sentencing judge decided to impose life without parole—a sentence greater than that requested by the prosecutor—for Graham's armed burglary conviction.").

^{147.} Alice Ristroph, *Hope, Imprisonment, and the Constitution*, 23 FED. SENT'G REP. 75, 75 (2010).

a responsible individual."¹⁴⁸ After *Graham*, "[a] State is not required to guarantee eventual freedom to a juvenile offender convicted of a nonhomicide crime."¹⁴⁹ Instead, "[w]hat the State must do . . . is give defendants like Graham some meaningful opportunity to obtain release based on demonstrated maturity and rehabilitation."¹⁵⁰

As the Court acknowledges, some juvenile offenders will develop "irredeemable" characteristics and continue to commit serious crimes worthy of life imprisonment in their adult years.¹⁵¹ The Eighth Amendment, however, "prohibit[s] States from making the judgment at the outset that those offenders never will be fit to reenter society."¹⁵²

C. Miller v. Alabama and Juvenile Life Without Parole for Homicide Offenses

Graham v. Florida and the 2012 case *Miller v. Alabama* are often conflated in their effect on Eighth Amendment jurisprudence, but there is an important distinction between the two.¹⁵³ In *Miller*, the Supreme Court effectively extended the Eighth Amendment protection of *Graham* to juveniles who commit homicide.¹⁵⁴ In its holding, the Court heavily relied on *Graham*, citing "juvenile's 'lessened culpability' and greater 'capacity for change."¹⁵⁵

In *Miller*, two fourteen-year-old offenders were convicted of murder and given LWOP sentences.¹⁵⁶ The *Miller* Court's decision contained numerous quotations from *Roper* and *Graham*, and the Court took care to explain that "[o]ur decisions rested not only on common sense—on what 'any parent knows'—but on science and social science as well."¹⁵⁷ The Court went through the same studies

^{148.} Id. at 76.

^{149.} Graham, 560 U.S. at 75.

^{150.} *Id.*

^{151.} Id.

^{152.} Id.

^{153.} Compare id. at 82 ("The Constitution prohibits the imposition of a life without parole sentence on a juvenile offender who did not commit homicide.") (emphasis added), with Miller v. Alabama, 132 S. Ct. 2455, 2475 (2012) ("By requiring that all children convicted of homicide receive lifetime incarceration without possibility of parole, regardless of their age and age-related characteristics and the nature of their crimes, the mandatory sentencing schemes before us violate this principle of proportionality, and so the Eighth Amendment's ban on cruel and unusual punishment.") (emphasis added).

^{154.} Miller, 132 S. Ct. at 2475.

^{155.} Id. at 2460 (quoting Graham, 560 U.S. at 50-51).

^{156.} *Id.*

^{157.} Id. at 2464 (quoting Roper v. Simmons, 543 U.S. 551, 569 (2005)).

that supported the holdings in *Roper* and *Graham*, stating "we cited studies showing that '[o]nly a relatively small proportion of adolescents' who engage in illegal activity 'develop entrenched patterns of problem behavior'....[A]s the years go by and neurological development occurs, [a juvenile's] 'deficiencies will be reformed."¹⁵⁸

In extending *Roper* and *Miller* to the protections of juvenile offenders who commit homicide, the Court emphasized that "the distinctive attributes of youth diminish the penological justifications for imposing the harshest sentences on juvenile offenders, *even when they commit terrible crimes*," such as homicide.¹⁵⁹ When dissecting the facts of the two consolidated cases in *Miller*, the immature and reckless nature of both juveniles is strikingly obvious.¹⁶⁰

For example, Kuntrell Jackson, who was sentenced to LWOP for capital felony murder of a video store clerk and aggravated robbery, ¹⁶¹ "did not fire the bullet" nor did he "intend[] [the victim's] death."¹⁶² Instead, Jackson "learned on the way to the video store that his friend . . . was carrying a gun."¹⁶³ The Court fleshed out Jackson's culpability and the effect of peer pressure, stating, "his age could well have affected his calculation of the risk that posed, as well as his willingness to walk away at that point."¹⁶⁴

Ultimately, the Court held that "the Eighth Amendment forbids a sentencing scheme that mandates life in prison without possibility of parole for juvenile offenders."¹⁶⁵ Like *Graham*, the State is not compelled to "guarantee eventual freedom" to juvenile offenders, but it does have to offer "some meaningful opportunity to obtain release based on demonstrated maturity and rehabilitation."¹⁶⁶ Under *Miller*, "youth is more than a chronological fact....[J]ust as the chronological age of a minor is itself a relevant mitigating factor of great weight, so must the background and mental and emotional development of a youthful defendant be duly considered" in determining a juvenile's culpability.¹⁶⁷

^{158.} *Id.* at 2464–65 (first quoting *Roper*, 543 U.S. at 570; then quoting Steinberg & Scott, *supra* note 97, at 1014).

^{159.} *Id.* at 2465 (emphasis added).

^{160.} Id. at 2468–69.

^{161.} *Id.* at 2460.

^{162.} *Id.* at 2468.

^{163.} *Id.*

^{164.} Id.

^{165.} *Id.* at 2469.

^{166.} Id. (quoting Graham v. Florida, 560 U.S. 48, 50 (2010)).

^{167.} Id. at 2467 (quoting Eddings v. Oklahoma, 455 U.S. 104, 115-16 (1982)).

IV. ALTERNATIVES TO JUVENILE INCARCERATION

In the late 1980s and early 1990s, fear of juvenile crime undermined the foundation on which the juvenile court system was based.¹⁶⁸ State legislatures and the federal government pushed for more transfers to adult prisons over juvenile courts, requiring juveniles to be treated as equal to adult offenders in both "culpability and understanding" of crimes committed.¹⁶⁹

In light of *Roper*, *Graham*, *Miller*, and the corresponding research on juvenile brain development, a number of large research studies indicate that the prosecution of juvenile offenders in adult criminal court significantly increases the likelihood that the youth will commit violent or other crimes in the future.¹⁷⁰ More than a decade of experience demonstrates that public safety can be secured without heavy reliance on incarceration.¹⁷¹

Juvenile correctional facilities were created with the idea of rehabilitating youth, but in most cases, they do nothing more than simply house troubled juveniles.¹⁷² Recidivism studies show that fifty to seventy percent of youth released from correctional facilities are arrested again within two years.¹⁷³ Relatedly, the harm that incarceration of youth can cause has been more fully understood.¹⁷⁴ Studies show that congregating delinquent juveniles teaches new illegal behaviors and increases the likelihood of reoffending.¹⁷⁵

In the past twenty years, however, successful models have emerged for reducing reliance on both local detention and large state correctional facilities for juvenile offenders without jeopardizing

^{168.} See Malcom C. Young & Jenni Gainsborough, Prosecuting Juveniles in Adult Court: An Assessment of Trends and Consequences, SENT'G PROJECT 2 (Jan. 2000), http://www.prisonpolicy.org/scans/sp/juvenile.pdf.

^{169.} *Id*.

^{170.} See, e.g., id. at 9.

^{171.} See BARRY HOLMAN & JASON ZIEDENBERG, THE DANGERS OF DETENTION: THE IMPACT OF INCARCERATING YOUTH IN DETENTION AND OTHER SECURE FACILITIES 6 (2006), http://www.justicepolicy.org/images/upload/06-11 rep dangersofdetention jj.pdf.

^{172.} See id. at 2.

 ^{173.} JUSTICE POLICY INST., THE COSTS OF CONFINEMENT: WHY GOOD JUVENILE JUSTICE POLICIES MAKE GOOD FISCAL SENSE 16 (2009), http://www.justicepolicy.org/images/upload/09_05_REP_CostsOfConfinement_JJ_P S.pdf.

^{174.} See Thomas J. Dishion et al., When Interventions Harm: Peer Groups and Problem Behavior, 54 AM. PSYCHOLOGIST 755, 755 (1999).

^{175.} *Id.* at 761 ("Developmental research suggests peer deviancy training is associated with subsequent increases in substance use, delinquency, and violence, as well as adjustment difficulties in adulthood.").

public safety.¹⁷⁶ Launched in the 1990s by the Annie E. Casey Foundation, the Juvenile Detention Alternatives Initiative (JDAI) has created a model for effectively reducing the juvenile justice system's reliance on detention while maintaining public safety.¹⁷⁷ JDAI began with five pilot sites in 1992 and now has 110 sites in twenty-seven states.¹⁷⁸ JDAI model sites throughout the nation have seen juvenile arrests "for serious violent offenses decline by 27 percent, 43 percent, and 46 percent, respectively."¹⁷⁹

Through models such as JDAI, the State can reduce its reliance on detention and imprisonment, and even save taxpayers a substantial amount of money.¹⁸⁰ When weighing the holdings of *Roper*, *Graham*, and *Miller*, it is important to note that—not only should the death penalty or LWOP sentences be constitutionally barred for adolescents—but also, imprisonment should not be the default punishment for juvenile offenders. Better alternatives exist.¹⁸¹

V. CONCLUSION

Rhetoric surrounding juvenile offenders vacillates between characterizations of juveniles as naïvely impulsive and dangerously criminal.¹⁸² This conflicting imagery likely will continue to exist throughout the media and sensationalized news stories.¹⁸³ Despite the depiction of juveniles as irreparably violent, neuropsychological research from the past three decades has disproved this notion.¹⁸⁴

With such overwhelmingly clear scientific evidence, Eighth Amendment jurisprudence for juvenile offenders has significantly changed.¹⁸⁵ Even though Justice Scalia was adamant that, "socioscientific, ethicoscientific, or even purely scientific evidence"¹⁸⁶ had no influence over constitutional arguments, a trend nonetheless began with *Roper, Graham*, and *Miller*.¹⁸⁷ These Supreme Court decisions demonstrate that neurological and

- 181. See, e.g., id. at 2–3.
- 182. Morse, *supra* note 41, at 15.
- 183. See id.
- 184. Ritter & Associated Press, supra note 75.
- 185. *See* cases cited *supra* note 29.
- Stanford v. Kentucky, 492 U.S. 361, 378 (1989), *abrogated by* Roper v. Simmons, 543 U.S. 551 (2005).
- 187. See supra Sections III.A–C.

^{176.} See, e.g., RICHARD A. MENDEL, TWO DECADES OF JDAI: FROM DEMONSTRATION PROJECT TO NATIONAL STANDARD 2 (2009), http://youthlaw.org/wp-content/uploads/2015/01/JDAI Report.pdf.

^{177.} Id.

^{178.} *Id.* at 8.

^{179.} *Id.* at 2.

^{180.} Id. at 3.

psychological research is now firmly rooted in Eighth Amendment arguments.¹⁸⁸ With viable alternatives to juvenile imprisonment, the trend of scaling back severe punishments for juvenile offenders should continue.¹⁸⁹ In fact, more recently, in *Montgomery v. Louisiana*,¹⁹⁰ the Supreme Court decided whether *Miller v. Alabama* applies retroactively to approximately 2300 individuals currently serving LWOP sentences for murder convictions.¹⁹¹ Ultimately, the Court held that state courts must give retroactive effect to new substantive rules of federal constitutional law.¹⁹² Thus, because the Court concluded that *Miller v. Alabama* announced a new substantive rule of constitutional law, *Miller* applies retroactively to those already sentenced to LWOP.¹⁹³ The Supreme Court's mandate of retroactive applicability of *Miller* only serves to bolster the movement toward mitigating juvenile sentences in light of reduced adolescent culpability.

- 189. See MENDEL, supra note 176, at 8–9, 32.
- 190. 136 S. Ct. 718 (2016).
- 191. Id. at 732.
- 192. *Id.* at 729–30.
- 193. *Id.* at 736.

^{188.} See supra Sections III.A–C.