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A Suggested Minor Refinement of Miller v. Alabama

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Comment

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TABLE OF CONTENTS

I. INTRODUCTION

In law as in physics, every action has an equal and opposite reaction.[1] While some heralded the United States Supreme Court's action in 2012's *Miller v. Alabama*—forbidding mandatory life without parole (LWOP) sentences for juveniles—a step in the right direction for protecting the interests of juveniles within the adult criminal justice system,[2] the reaction has been mixed, with some seeing the decision as a step backwards for the ability of states to sentence their

* J.D. Candidate, University of the Pacific, McGeorge School of Law, 2015; B.S. Microbiology, California Polytechnic State University, San Luis Obispo, 2000. I would like to thank Distinguished Professor Michael Vitiello for his time and patience, and his ability to see beyond our philosophical differences. Could I have done this without him? . . . Not just "no," but "hell, no." I also want to thank McGeorge Law Review Chief Comment Editor Jacquelyn Loyd and Chief Technical Editor Anthony Serrao for the endless hours the two of them spent serving as sounding boards during this Comment's evolution. And most importantly, I want to thank my husband, Matt, for his unwavering support.

1. Fredrick Schauer, *Can Bad Science Be Good Evidence? Neuroscience, Lie Detection, And Beyond*, 95 CORNELL L. REV. 1191, 1199 (2010) [hereinafter Schauer].

2. Mark Osler, *Kagan's Elegant Principle: Children Are Different*, HUFFINGTON POST (July 10, 2012), *available at* http://www.huffingtonpost.com/mark-osler/children-are-different_b_1659440.html (on file with the *McGeorge Law Review*).

criminals as they see fit[3] and a deviation from previous sentencing precedent.[4] This, combined with the Court's reliance on scientific data about the maturation process of adolescents,[5] the integrity of which has been called into question,[6] has led to some jurisdictions working to circumvent the decision.[7]

The *Miller* decision recognized the differences between those under and over eighteen, and sought to treat those under eighteen with more compassion.[8] Nonetheless, the decision ignored both the needs of society that are served by ensuring victims have peace of mind,[9] and the fact that some crimes are so heinous the perpetrators do not deserve leniency.[10] The Court spoke too broadly applying its rule to all minors.[11]

This Comment will first summarize the Supreme Court's previous sentencing precedent, the cases that paved the way for the *Miller* decision—establishing that "children are different,"—and then the *Miller* decision. Next, it will highlight the troubles lower courts have faced in trying to implement the decision, the flaws in, and alternative interpretations of, the science relied upon, and then turn to the question of whether juveniles over the age of sixteen have reached sufficient maturity as to allow the system to hold them as accountable as adults for homicide crimes. In response to the likelihood that those sixteen and over are sufficiently mature, this Comment proposes a way to preserve deference to the

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3. *Infra* Part III.C.

4. *See Infra* Part II.C.

5. Miller v. Alabama, __ U.S.__, 132 S. Ct. 2455, 2464 (2012) (5-4 decision). Some commentators, however, argue that science had very little to do with the decision. *See generally* Kevin Saunders, *The Role of Science in the Supreme Court's Limitations on Juvenile Punishment,* 46 TEX. TECH L. REV. 339 (2013) [hereinafter *The Role of Science*] (discussing the limited role played by science in the *Miller* decision).

6. *See generally* SALLY SATEL & SCOTT O. LILIENFELD, BRAINWASHED: THE SEDUCTIVE APPEAL OF MINDLESS NEUROSCIENCE (2013) [hereinafter BRAINWASHED] (questioning the utility of the brain imaging relied upon by the *Miller* court). *See also* Jamie D. Brooks, "*What Any Parent Knows" But The Supreme Court Misunderstands: Reassessing Neuroscience's Role In Diminished Capacity Jurisprudence*, 17 NEW CRIM. L. REV. 442, 444 (2014) [hereinafter *The Supreme Court Misunderstands*] (stating the Court "confus[ed] biomechanical causation with per se mitigation.").

7. *See e.g.,* Alexandra Zayas, *No Life Term? Then 65 Years*, ST. PETERSBURG TIMES, (Nov. 18, 2010) B1 (referring to Walle v. Florida, 99 So.3d 967 (2012)); *see also* Matt Dixon, *Rob Bradley Again Trying to Change Florida's Juvenile Sentencing Laws*, THE FLORIDA TIMES-UNION (Nov. 30, 2013), *available at* http://jacksonville.com/news/crime/2013-11-30/story/rob-bradley-again-trying-change-floridas-juvenile-sentencing-laws (on file with the *McGeorge Law Review*) (detailing Florida's failed efforts to pass bills to bring their statutory law in line with Graham.)

8. *See infra* Part II.C.

9. *See infra* Part III.C.

10. Craig S. Lerner, *Juvenile Criminal Responsibility: Can Malice Supply the Want of Years?*, 86 TUL. L. REV. 309, 339 (2011) [hereinafter *Juvenile Criminal Responsibility*]. The Court of Appeals hearing Miller's case stated the crime was "intentional and horrendous." Miller v. State, 63 So. 3d 676, 689 (Ala. Crim. App. 2010), *cert. granted*, 132 S. Ct. 548 (2011) (No. 10-9646). Supreme Court Justice Alito referred to Evan Miller's crime as being committed with "brutality and evident depravity." Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2489, (2012) (Alito, J., dissenting).

11. *See generally* Miller, __ U.S. at __, 132 S. Ct. at 2489 (both offenders were fourteen at the time of their offenses yet the decision applies to all minors).

various state legislatures' sentencing decisions[12] while addressing increasing concern that juveniles should be treated differently. The *Miller* pre-sentencing evaluation factors,[13] as discussed in depth below, should only apply categorically to those under sixteen, and those sixteen and seventeen in cases where the juvenile offender is quite young or possesses what the Court calls twice-diminished culpability:[14] cases where the offender was convicted under an aiding and abetting or accomplice theory, or felony murder.

II. *MILLER*'S FAMILY TREE

This section summarizes the Court's previous deference to state legislatures when deciding what punishments are appropriate for a given crime and the evolution of the "children are different" case law, before discussing the *Miller* decision and the resulting troubles faced in lower courts.

A. Sentencing Precedent

Until *Miller*, the Court had maintained a position of deference to state legislatures regarding felony sentencing,[15] with the Court reserving the right to step in[16] only "in the most extreme situations imaginable."[17] This is because the work of conducting the extensive fact-finding needed to evaluate the basis for a criminal statute is the "province of the legislature," which acts as the voice of the people on issues of morality.[18] Recognizing that federalism allows various states to have differing punishments for the same offense,[19] the Court declared "federal courts should be reluctan[t] to review legislatively mandated terms of

12. At the time of *Roper*, members of the Court recognized that due to conflicting scientific data the Courts are not in a position to determine which studies to trust. *The Role of Science*, *supra* note 5, at 354 (quoting Justice Scalia).

13. *See infra* Part II.D (describing the factors). The factors include the defendant's (1) youth, (2) background, (3) mental and emotional development, (4) the nature of and the circumstances surrounding the crime, and (5) the defendant's participation level in the crime. Miller, __ U.S. __, 132 S. Ct. 2468.

14. Graham v. Florida, 560 U.S. 48, 50 (2010).

15. *See* Michael Vitiello, *The Expanding Use Of Genetic And Psychological Evidence: Finding Coherence In The Criminal Law?* 14 NEV. L.J. 909–910 (Summer 2014) [hereinafter *Finding Coherence*] (noting the Court had "given states wide latitude in setting criminal punishments."); *see e.g.,* Rummel v. Estelle, 445 U.S. 263, 274–75 (1980); Hutto v. Davis, 454 U.S. 370 (1982) (per curiam) (deferring to the state legislatures).

16. *Rummel*, 445 U.S. at 274 n. 11.

17. James J. Brennan, *The Supreme Court's Excessive Deference to Legislative Bodies Under Eighth Amendment Sentencing Review,* 94 J. CRIM. L. & CRIMINOLOGY 551, 555 (2004).

18. *Miller*, __ U.S. at__, 132 S. Ct. at 2483 (Thomas, J., dissenting) (stating "the [Eighth Amendment] leaves the unavoidably moral question of who 'deserves' a particular nonprohibited method of punishment to the judgment of the legislatures that authorize the penalty.") (internal quotation marks omitted).

19. *Rummel*, 445 U.S. at 281–282.

imprisonment,"[20] because those prison terms were fundamentally different from death sentences "no matter how long."[21] The Court emphasized that "drawing lines between different sentences of imprisonment would thrust the Court inevitably" into the legislature's territory[22] and "trample on fundamental concepts of federalism."[23]

In 1983, the Court decided *Solem v. Helm,* for the first time unequivocally tying the Eighth Amendment inquiry to proportionality principles, determining it was unconstitutional to sentence a person to LWOP for writing a bad $100 check.[24] Echoing previous case law, the Court announced that in non-capital cases, "*successful* challenges to the proportionality of particular sentences will be exceedingly rare."[25] Nonetheless, the sentence in *Solem* was disproportionate to the crime because the crime was nonviolent, the defendant had only minor prior felonies, the sentence was the harshest the state in question gave out for any offense, and only one other state included equivalent punishment for issuing a bad check.[26]

Eight years later, *Harmelin v. Michigan*[27] upheld a mandatory LWOP sentence for a drug possession offense.[28] Not only did that decision decree "a sentence which is not otherwise cruel and unusual does not become so simply because it is mandatory,"[29] a position that would later be altered by *Miller*,[30] it reinforced the "primacy of the legislature" to determine prison sentences.[31] Further, Justice Kennedy's concurrence[32] stated, "[t]he Eighth Amendment does

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20. Hutto v. Davis, 454 U.S. 370, 374 (1982) (internal quotation marks omitted).

21. *Rummel*, 445 U.S. at 272.

22. Solem v. Helm, 463 U.S. 277, 308 (1983) (Berger, C.J., dissenting) (discussing *Rummel*).

23. *Id.* at 309 (1983) (Berger, C.J., dissenting) (discussing *Rummel*).

24. *Solem*, 463 U.S. at 284.

25. *Id.* at 289–90 (1983) (emphasis original). One of the few cases in which the Court had previously overturned a sentence involved the Court announcing the fifteen-year sentence to "'cadena temporal,' punishment that included hard labor in chains and permanent civil disabilities" was too harsh a punishment for falsifying a public document. *Id.* at 287 (citing *Weems v. United States*, 217 U.S. 349 (1910)). However, it has been disputed it was not the length of punishment which made the sentence unconstitutional, but rather the form punishment." *See Rummel,* 445 U.S. at 273.

26. *Solem,* 463 U.S. at 277 (1983).

27. *See* Harmelin v. Michigan, 501 U.S. 957, 995 (1991) (a 2-3-4 decision) (discussing sentencing). The opinion reflected a respect for the fact that, given the range of "statutes that Americans have enacted [across the United States], there is enormous variation—even within a given age, not to mention across the many generations" on what constitutes a "serious crime" and the appropriate punishment for that crime. *Id.* at 986.

28. *Id.* at 957.

29. *Id.* at 995 (internal quotation marks omitted).

30. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2464 (2012).

31. *Harmelin*, 501 U.S. at 1001. This determination was repeated again in 2003 in *Ewing v. California*, where the Court noted it does "not sit as a 'superlegislature' to second-guess . . . policy choices. It is enough that the State . . . has a reasonable basis for believing" its sentencing methods were appropriate. 538 U.S. 11, 28 (2003).

32. The *Harmelin* decision consisted of a two-vote plurality, a three-vote concurrence, and three separate dissents. *Harmelin*, 501 U.S. at 957.

not require strict proportionality between crime and sentence. Rather, it forbids only extreme sentences that are 'grossly disproportionate' to the crime."[33] But perhaps more importantly, Justice Scalia's two-vote plurality announced that courts should not assess proportionality when determining whether or not a punishment was "cruel and unusual."[34] Justice Scalia emphasized the importance of a state's right to choose its own sentencing structure, stating that "[d]iversity not only in policy, but in the means of implementing policy, is the very *raison d'être* of our federal system."[35]

In sum, prior to *Miller*, the Court had held that the Eighth Amendment imposes almost no limitation on a state's ability to sentence their offenders as it sees fit, overriding federalism concerns only in the most extreme situations.

B. Action: Recognizing Children[36] are Different

Juvenile justice "reform battles are often fought in the court of public opinion."[37] Perhaps that was never more apparent than in the 1990s when the media began reporting an increase in juvenile "super predators."[38] This led to a "moral panic,"[39] and, in response, almost every state passed laws lowering the age at which courts could—or in some cases must[40]—try juveniles as adults.[41] Most states also enacted laws requiring mandatory LWOP for some homicide

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33. *Id.* at 1001.

34. *Id.* at 977–984 (Justice Scalia was joined by Chief Justice Roberts). The Court worried seeking sentence proportionality would "become[] an invitation to imposition of subjective values." *Id.* at 987.

35. *Id.* at 990.

36. Despite being "technically correct," those who support tough sanctions for juvenile offenders "take umbrage to referring to [those offenders] as children . . . as the word conveys a sense of innocence." Beth A. Colgan, *Constitutional Line Drawing at the Intersection of Childhood and Crime*, 9 STAN. J. CIV. RTS. & CIV. LIBERTIES 80, 106 FN5 (2013) (internal quotation marks omitted) [hereinafter *Constitutional Line Drawing*].

37. *Part I Criminal Justice and Corrections in the United States*, MS. EXCEPTION TO THE RULE (May 14, 2010) *available at* http://msexceptiontotherule.wordpress.com/2010/05/14/part-i-criminal-justice-and-corrections-in-the-united-states/ (on file with the *McGeorge Law Review*).

38. *See* John J. Dilulio, *The Coming Of The Super-Predators,* THE WEEKLY STANDARD (Nov. 27, 1995) *available at* http://cooley.libarts.wsu.edu/schwartj/criminology/dilulio.pdf (on file with the *McGeorge Law Review*). Dilulio described "super predators" as crime-prone teens plagued by "moral poverty" "whose behavior is driven by two profound developmental defects. First, they are radically present-oriented. . . . Second, [they] are radically self-regarding." *Id*. at 4.

39. Elizabeth S. Scott, *Keynote Address: Adolescence and the Regulation of Youth Crime*, 79 TEMP. L. REV. 337, 351 (2006) [hereinafter *Keynote Address*].

40. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2474 and n. 15 (2012) (noting thirteen states require juvenile homicide offenders to enter the adult system).

41. N. Lee Cooper, Patricia Puritz & Wendy Shang, *Fulfilling The Promise of In Re Gault: Advancing The Role Of Lawyers For Children*, 33 WAKE FOREST L. REV. 651, 651–652 (1998). "From 1992 through 1999, 49 states and the District of Columbia enacted or expanded their transfer provisions" for trying juveniles in the adult criminal justice system. *All States Allow Juveniles To Be Tried As Adults In Criminal Court Under Certain Circumstances*, NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE (last viewed Oct. 30, 2013) *available at* https://www.ncjrs.gov/html/ojjdp/195420/page4.html (on file with the *McGeorge Law Review*).

crimes.[42] In the past decade, however, another juvenile justice reform battle, once again started in the court of public opinion, has been waged.[43]

Starting with 2005's *Roper v. Simmons,* the Supreme Court began to scale back on the types of sentences that could be imposed on juvenile offenders, announcing that sentencing juveniles to death was cruel and unusual.[44] The *Roper* Court—relying on scientific data—held "juvenile offenders cannot with reliability be classified among the worst offenders"[45] as they are less blameworthy.[46] The Court did so because social science research supported three fundamental ideas.[47] First, juveniles' actions are less "morally reprehensible" because juveniles are "susceptibl[e] to immature and irresponsible behavior."[48] Second, courts should forgive juveniles "for failing to escape negative influences in their whole environment" because, when compared to adults, juveniles show "vulnerability and comparative lack of control over their immediate surroundings."[49] And third, because juveniles are still "struggl[ing] to define their identit[ies,]" the courts have less "evidence of irretrievably depraved character."[50]

Five years later, in *Graham v. Florida*, the Court once again reined in states' ability to sentence juvenile offenders when it held it unconstitutional to sentence a juvenile to LWOP for a non-homicide offense.[51] In evaluating the sanction, the Court looked first to the legislative decisions of all the states.[52] Finding that while thirty-eight jurisdictions "permit sentences of [LWOP] for a juvenile nonhomicide offender in some circumstances," few states used the sentence; thus, the sentence was "unusual."[53]

Again, scientific research discussing the characteristics of youth played a large part in the decision.[54] Once more recognizing juveniles "are more capable of change,"[55] the Court announced sentencing needed to be closely tailored to penological interests.[56] As a result, the Court held juvenile LWOP (JLWOP)

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42. *Miller*, __ U.S. at __, 132 S. Ct. at 2471 ("29 jurisdictions (28 states and the Federal Government) make a life-without-parole term mandatory for some juveniles convicted of murder in adult court.").

43. *See* Part II.B (describing the "Children are Different" case law).

44. Roper v. Simmons, 543 U.S. 551 (2005).

45. *Id.* at 553.

46. *Id.* at 559.

47. *See id.* at 553.

48. *Id.*

49. *Id.*

50. *Id.*

51. Graham v. Florida, 560 U.S. 48 (2010).

52. *Id.* at 49, quoting Atkins v. Virginia, 536 U.S. 304, 312 (2002) (stating state legislative decisions are "[t]he clearest and most reliable objective evidence of contemporary values.").

53. *Id.* at 62 (thirty-seven states and the District of Columbia).

54. *See generally id*.

55. *Id.*

56. *Id.* at 71–75 (2010) (finding neither retribution, incapacitation, rehabilitation or deterrence an adequate justification for JLWOP).

sentences are too harsh a punishment for a non-homicide crime;[57] those crimes lack the "severity and irrevocability" of a homicide offense.[58] This decision implied that the Court would never deem a JLWOP sentence unconstitutional if it resulted from a homicide offense, however, a mere two years later, the Supreme Court did just that.[59]

C. Miller v. Alabama[60]

A judge sentenced Evan Miller and Kuntrell Jackson, fourteen year-old boys, to LWOP for their parts in the death of their respective victims, yet each played a substantially different role in the murder of which they were convicted.[61] Jackson was a passive participant in the video store robbery-turned-shooting death of a cashier,[62] whereas Miller used a baseball bat to beat a neighbor into unconsciousness[63] before setting the neighbor's trailer on fire and leaving his victim to die.[64]

The split Court used the same reasoning substantiating the *Roper* and *Graham* decisions—children are different—to justify its holding that courts cannot mandatorily sentence juveniles to LWOP; to do otherwise would be imposing cruel and unusual punishment.[65] As it did in *Graham* and *Roper*, the *Miller* Court relied on amicus briefs submitted on behalf of the defendants,[66] which emphasized science[67] and precedent.[68]

According to the Court, psychology and neuroscience support the contentions that juveniles possess 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."[69] These differences are allegedly[70] the result of the brain

57. *Id.* at 74.

58. *Id.* at 50 (internal quotation marks omitted).

59. *See* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455 (2012) (discussing JLWOP).

60. *Id*. (reviewing the consolidated cases of Evan Miller and *Jackson v. Hobbs*).

61. *Id.* at 2457.

62. *Id.* at 2461 (noting Jackson and some friends decided to rob the store, but it was only once they were on their way that Jackson learned the other boys brought along a gun).

63. *Id.* at 2462.

64. *Id.*

65. *Id.* at 2460.

66. *Id.* at n. 5 (referencing the amicus brief of the American Psychological Association et al.).

67. *Id.* at 2464 (discussing "developments in psychology and brain science" and "fundamental differences between juvenile and adult minds").

68. *Id.* at 2464 (citing *Roper* and *Graham).*

69. *Id.* at 2464–2465 (quoting Graham v. Florida, 560 U.S. 48, 68 (2010)) (internal quotation marks omitted). This purported reliance on "brain science," however, did not go without raising a few eyebrows, even from within the Court itself. *See* Graham v. Florida, 560 U.S. at 119 (Thomas, J, dissenting) (questioning whether the court "believe[s] its pronouncements about the juvenile mind."). I say "purported" as critics worry the decision was based more on personal beliefs than on the facts in front of the court. *See* Andrew Cohen, *If*

still developing[71] via pruning and myelination[72]—the biological system by which the brain strengthens itself in our teen years.[73] These processes are incomplete until early adulthood,[74] with the prefrontal cortex being one of the last regions to mature.[75] The amicus briefs cited in *Miller* refer to neuroscientific studies and assert that the results of fMRI testing back up these facts,[76] explaining that a brain's amygdala—"a neural system that evolved to detect danger and produce rapid protective responses without conscious participation"[77]—is more active in juveniles than in adults.[78] Because pruning and myelination are incomplete, a juvenile's brain cannot suppress the amygdala-related emotions as well as an adult's brain can.[79]

This science allowed proponents of lighter sentences to assert "that adolescents are immature . . . in the very fibers of their brains."[80] Thus, "normal adolescents cannot be expected to operate with the level of maturity, judgment, risk aversion, or impulse control of an adult."[81] As "[a]dolescents cannot be expected to transcend their own psychological or biological capacities,"[82] the

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You Think Monday Was Bad at the Supreme Court . . . , THE ATLANTIC (June 26, 2012) *available at* http://www.theatlantic.com/national/archive/2012/06/if-you-think-monday-was-bad-at-the-supreme-court/258963/ [hereinafter Cohen] (on file with the *McGeorge Law Review*) (noting the decision was likely largely influenced by some of the Justices' roles as parents). Nonetheless, at least one critic feels that "the Supreme Court adopted a view of character and character development that reflects an outdated model of personal identity development." Mark Fondacaro, *Rethinking The Scientific And Legal Implications Of Developmental Differences Research In Juvenile Justice*, 17 NEW CRIM. L. REV. 407, 421 (2014) [hereinafter Fondacaro].

70. An alternate explanation will be presented in Parts III.A and III.B.

71. *See* Brief for American Medical Association et al. as Amici Curiae at 19, Graham v. Florida, 560 U.S. 48 (2009) [hereinafter *Graham* AMA Brief].

72. *See* Brief for the American Medical Association et al. as Amici Curiae at 18, Roper v. Simmons, 543 U.S. 551 (2004) [hereinafter *Roper* AMA Brief] (noting this data was gathered traditionally through autopsy analyses).

73. *See Graham* AMA Brief, *supra* note 71, at 18. During pruning, "excess neurons and connections" within the brain's grey matter are "pruned," "lead[ing] to greater efficiency of neural processing. . . . " During myelination, "the brain's axons are coated with a fatty white substance called myelin . . . insulat[ing neural] pathway[s], mak[ing] communication between different parts of the brain faster and more reliable." *Id.*

74. *The Role of Science, supra* note 5, at 351.

75. *See Graham* AMA Brief, *supra* note 71, at 21–22 (discussing the study results). The prefrontal cortex is the portion of the brain responsible for "risk assessment, impulse control, emotional regulation, decision-making, and planning."). *Id.*

76. *See e.g.*, Brief for the American Psychological Association et al. as Amici Curiae in Support of Petitioners at 17, Miller v. Alabama, __ U.S. __ 132 S. Ct. 2455 (2012) (discussing the study results) [hereinafter *Miller* APA Brief]. fMRI takes readings on brain activity and translates the readings into colorful images. BRAINWASHED, *supra* note 6, at x.

77. *Roper* AMA Brief, *supra* note 72, at 12–13.

78. *Id.* at 15.

79. *See* BRAINWASHED, *supra* note 6, at 99.

80. *Roper* AMA Brief, *supra* note 72, at 10.

81. *Id*. at 20.

82. *Id*.

criminal sanctions they face should be less severe[83] especially as our criminal justice system centers on the idea of punishing only the culpable.[84] *Graham* echoed this premise, with the Court stating that juveniles do not deserve LWOP because they possess a "twice diminished moral culpability"—the result of their youth coupled with the fact that they did not kill.[85] Yet *Miller* extended this reasoning despite the fact that a death occurred.[86] The *Miller* Court reasoned that juveniles could still possess a "twice diminished moral culpability," the result of their age coupled with their family background.[87] Due to this diminished culpability, according to *Miller*, courts must consider several factors before sentencing a juvenile offender to LWOP.[88] These factors include the defendant's (1) youth, (2) background, (3) mental and emotional development, (4) the nature of and the circumstances surrounding the crime, and (5) the defendant's participation level in the crime.[89]

In declaring a mandatory sentence unconstitutional, the Court rejected the idea that because the majority of states allow and hand down mandatory JLWOP sentences, the criminal justice system should not consider such a sentence "unusual."[90] In making this statement, not only did the Court refuse to defer to state judgments, it stated that some states must not have intended the laws they passed,[91] despite strong evidence to the contrary.[92]

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83. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2464 (2012).

84. Rebecca House, *Seen But Not Heard: Using Judicial Waiver to Save the Juvenile Justice System and Our Kids*, 45 U. TOL. L. REV. 149, 168 (2013).

85. Graham v. Florida, 560 U.S. 48, 69 (2010).

86. Miller, __ U.S. __, 132 S. Ct. 2460.

87. *Id*. at 2468–2469.

88. *Id*. at 2468.

89. *Id*.

90. *Id*. at 2471 (29 jurisdictions make a LWOP "mandatory for some juveniles convicted of murder in adult court.").

91. *Id*. at 2472 (stating that as in some states juvenile offenders received LWOP sentences at the intersection of two statutes—one allowing them to be transferred to adult court and another establishing the penalties for these severe crimes—" the legislature can be considered to have imposed the resulting sentences 'inadvertent[ly].'"). In *Graham,* the Court confronted this same situation and determined "it was impossible to say whether a legislature had endorsed" teens receiving LWOP. Graham v. Florida, 560 U.S. 48, 67 (2010).

92. Legislatures only relatively recently passed such tough on crimes laws. *See infra* Part II.B. Recent legislative attempts to alter these tough on crime laws have failed. *See e.g.*, Margie Manzel, *Supreme Court Hears Juvenile Sentencing Arguments*, THE NAPLES NEWS (Sept. 17, 2013), *available at* http://www.naplesnews.com/news/2013/sep/17/supreme-court-hears-juvenile-sentencing-arguments/ (on file with the *McGeorge Law Review*) (discussing the Florida legislature's failed attempts to enact bills to ensure juvenile offenders were eventually eligible for parole.) No more than three years ago, before the *Graham* decision, thirty-seven states allowed juvenile LWOP even for non-homicide crimes. *Graham*, 560 U.S. at 62. Lastly, public opinion polls show most Americans support not only the death penalty, but also LWOP. Hans Bader, *Supreme Court Undermines Protections Against Violent Crime in Miller v. Alabama*, EXAMINER.COM (June 25, 2012), http://www.examiner.com/article/supreme-court-undermines-protections-against-crime-miller-v-alabama (on file with the *McGeorge Law Review*). The argument that JLWOP is unusual is one even some members of the Court saw as pretext. *Miller*, __ U.S. at __, 132 S. Ct. at 2490 (Alito, J., dissenting, joined by Scalia, J.)

The dissenting opinions centered around two main themes.[93] First, Justice Thomas argued that the Court should not have distinguished *Harmelin* as neither the Constitution nor the "qualitative difference between any term of imprisonment and death" had changed.[94] As such, he concluded "the defendant's age [should still be] immaterial to the Eighth Amendment analysis."[95] In the same vein, and concerned with the way the majority was extending the "children are different" rationale, Chief Justice Roberts worried in a separate dissent there would be "no discernible end point" to the different ways the Court might treat those under eighteen.[96]

Second, Justice Alito lamented the majority's apparent abandonment of the Eighth Amendment's meaning, and he expressed consternation such "cases are no longer tied to any objective indicia of society's standards."[97] He feared the decision was the result of the Court allowing personal or political bias to influence the ruling[98] and, as dreaded by Chief Justice Roberts, might "merely [be] a way station on the path to further judicial displacement of the legislative role in prescribing appropriate punishment for crime."[99] As evidence the Court ignored true indicia of society's "evolving standards," he argued there could be nothing unusual about sentencing a juvenile offender to LWOP given that trial courts throughout the nation have imposed that sentence on nearly 2,000 juveniles.[100]

Chief Justice Roberts also distinguished between the decency the Court invoked and the leniency *Miller* affords some offenders[101] when he explained that a decent society need not be lenient and should be allowed to choose harsher penalties for those who commit serious crimes in order to "protect[] the innocent

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93. *See e.g.*, *Miller*, __ U.S. at__, 132 S. Ct. at 2486 (Thomas, J., dissenting) (stating "What has changed . . . is this Court's ever-expanding line").

94. *Id*. (stating "no legal precedent had changed since that Court decided that age would not be a determination in sentencing") (Thomas, J., dissenting).

95. *Id*.

96. *Id*. at 2481 (Roberts, C.J., dissenting).

97. *Id*. at 2490 (Alito, J., dissenting).

98. *See id*. at 2490 (Alito, J., dissenting) (fearing the Court would continue expanding the holding).

99. *Id*. at 2481 (Roberts, C.J., dissenting). Evidence of the fact that the decision could be used to justify more lenient sentences for a wider class of offenders can be found in the fact that articles already advocating of applying the same principles stated in *Miller* for older offenders. *See e.g.,* Michael Meltsner, *The Dilemmas of Excessive Sentencing: Death May Be Different But How Different?* ___ NORTHEASTERN U. L.J. ____ (upcoming 2014) (stating "many of the traits recognized as reducing the culpability of youth apply to other prisoners who weren't under 18 when they offended."); Cara H. Drinan, The Miller Revolution, (Aug. 1, 2014) draft available at SSRN: http://ssrn.com/abstract=2475126 or http://dx.doi.org/10.2139/ssrn.2475126 (on file with the *McGeorge Law Review*).

100. *See Miller* at 2478–2480 (2012) (Roberts, C.J., dissenting) (urging greater respect for state legislatures). As the *Graham* decision was well publicized the media "alerted legislatures to the possibility that teenagers were subject to" LWOP the resulting LWOP sentences were intentional. *Id*. at 2480 (Roberts, C.J., dissenting).

101. *Id*. at 2478 (Roberts, C.J., dissenting) (stating there is no reason to believe "that progress toward greater decency can move only in the direction of easing sanctions on the guilty.").

from violence."[102] Permanently removing those offenders from society can be a "concrete expression of [society's] standards of decency."[103]

Given the dissension among the Justices, the amount of precedent altered, and the uncertainty over whether the quantity of legislation allowing mandatory JLWOP sentences provides any sort of societal consensus, commentators predicted, and lower courts experienced, trouble.[104]

D. Reaction: Troubles Faced In Lower Courts

In the wake of *Miller*, juvenile rights advocates heralded the decision[105] for helping to prevent the public from viewing juvenile offenders as "throw away children."[106] However, some commentators argued that *Miller* is "riddled with uncertainties"[107] and will have "devastating effects."[108] Yet some of these "devastating effects" could be avoided or minimized.[109]

Miller does not ban the imposition of JLWOP sentences for homicide offenders; it merely requires an "individualized inquiry" before a court imposes a sentence.[110] Because this inquiry asks the courts to look at each defendant separately,[111] rather than working to minimize discriminatory sentencing,[112] some

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102. *Id.*

103. *Id.*

104. *See* Part II.D.

105. *See e.g.,* Mark Osler, *Kagan's Elegant Principle: Children Are Different*, HUFFINGTON POST (July 10, 2012), http://www.huffingtonpost.com/mark-osler/children-are-different_b_1659440.html (on file with the *McGeorge Law Review*).

106. *See* The Crime Report, *Throw-Away Children: Juvenile Justice in Collapse*, THE CRIME REPORT (Feb. 9, 2010), http://www.thecrimereport.org/archive/throw-away-children-juvenile-justice-in-collapse/ (on file with the *McGeorge Law Review*).

107. Craig S. Lerner, *Sentenced to Confusion: Miller v. Alabama and the Coming Wave of Eighth Amendment Cases*, 20 GEO. MASON L. REV. 25, 27 (2012); *See also* Ashby Jones, *Courts Split Over Ruling on Juvenile Life Sentences*, WALL ST. J. (Sept. 4, 2013), http://online.wsj.com/news/articles/SB10001424127887324906304579038610174471156 (on file with the *McGeorge Law Review*) ("We got an opinion from the highest court in the land, but nobody knows how to implement it.").

108. Sara L. Ochs, *Miller v. Alabama: The Supreme Court's Lenient Approach to Our Nation's Juvenile Murderers*, 58 LOY. L. REV. 1073, 1097 (2012) [hereinafter *Lenient Approach*]. Such devastating effects include the fear that courts may soon be disallowed from prosecuting those under eighteen in the adult system, resulting in light punishments for children who commit horrendous crimes, and thus harming societal safety. *Id.* at 1098–1099. There is also concern that this "diminished capacity principle" could eventually lead to "psychopaths and recidivists, to whom society has traditionally been least sympathetic . . . also invok[ing] neurobiological causes for their criminal behavior as a partial excuse." *The Supreme Court Misunderstands*, supra note 6, at 475.

109. *See* Part III.C.

110. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2468 (2012).

111. *See id.* (describing the factors).

112. THE SENTENCING PROJECT, REDUCING RACIAL DISPARITY IN THE CRIMINAL JUSTICE SYSTEM 1 (2008).

fear that sentences based on bias will become more prevalent.[113] Such bias could be the result of the defendant's physical appearance and demeanor,[114] or the temperament of the judge in front of whom they appear.[115] That such disparate sentencing could arise is neither speculation nor a notion accidentally overlooked in *Miller*.[116] Furthermore, individualized sentencing was previously discussed and disapproved of by Justice Scalia's plurality opinion and Justice Kennedy's concurrence in *Harmelin*[117] and the Sentencing Reform Act was passed to eliminate discretionary sentencing as Congress had "concluded that [discretionary sentencing] had led to gross abuses."[118]

As *Miller* does not ban lengthy sentences, only mandatory LWOP, the potential abuses include courts within the same state sentencing one offender to LWOP or a lengthy term of years, and another offender to a much shorter term for committing the same crime, the only difference, for example, being the color of the defendant's skin.[119]

Additionally, states that disagree with the decision may replace laws allowing mandatory JLWOP with laws that allow for extraordinarily long term of years sentences,[120] the functional equivalent of LWOP, "remov[ing] clarity in sentencing," and "reducing deterrence."[121] Should states take such action, it would "deprive[] victims of the satisfaction of knowing . . . that the criminal [who impacted their lives] will never be set free."[122]

Given the problems the *Miller* decision stands to create within the legal system and for the public, one must understand the weaknesses in the reasoning the Court used to arrive at its holding.[123]

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113. *See Keynote Address*, *supra* note 39, at 349 ("Research evidence suggests that racial and ethnic biases influence attitudes about the punishment of young offenders").

114. Elizabeth S. Scott & Laurence Steinberg*, Rethinking Juvenile Justice* 140 (2008) ("litigating maturity on a case-by-case basis is likely to be an error-prone undertaking, with the outcomes determined by factors other than psychological immaturity-such as physical appearance or demeanor.").

115. Irving R. Kaufman, *Sentencing: The Judge's Problem*, THE ATLANTIC (Jan. 1960), *available at* http://www.theatlantic.com/past/unbound/flashbks/death/kaufman.htm (on file with the *McGeorge Law Review*).

116. *See* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2489 n. 2 (2012) (discussing the issues with individualized sentences).

117. Harmelin v. Michigan, 501 U.S. 957, 995, 1006–1007 (1991).

118. 18 U.S.C. 3551 et seq. (2012). The Act has fallen out of favor since its passage. *See* Michael Vitiello*, Alternatives to Incarceration: Why Is California Lagging Behind?,* 28 GA. ST. U. L. REV. 1275, 1281, 1285 (2012).

119. *See Keynote Address*, *supra* note 39, at 349 (discussing racial bias).

120. *See Juvenile Criminal Responsibility*, *supra* note 10, at 364 (noting "what is prohibited is transparency when they are pronouncing a sentence.").

121. *Id.* at 386.

122. *Id.* The effects of this decision on victims is outside the scope of this article.

123. *See infra* Part III.A.

III. REDRAWING AGE-BASED LINES

Although some scientific data suggests that eighteen year-olds are too young for harsh adult sentences,[124] this Comment only addresses the argument presented by researchers on the other side of the debate: states should be free to sentence their offenders over the age of sixteen as they see fit.[125] The Court in *Miller* should not have analyzed whether an offender is still young enough that his or her behavior is likely to change.[126] Rather, given the relative maturity of those sixteen and older,[127] the court should have addressed the issue of whether, by sixteen, the offenders are old enough to have mentally developed enough to subject them to adult criminal sanctions. In opting to allow states to issue mandatory LWOP sentences to young adults—despite the science stating mental development is not complete until a person's mid-twenties[128]—the Court implied complete maturity is not a prerequisite for mandatory LWOP.[129] As a result, this Comment objectively evaluates the facts, revealing the issue is not clear-cut, and ultimately suggests the Court reopen the door to deference to state legislatures.

To analyze the weaknesses in *Miller,* this Comment explains the problems with the science that the *Roper*, *Graham*, and *Miller* Courts relied on, evaluating whether the brains of young adults between sixteen and eighteen are really so different from those of adults. Lastly, it suggests a way in which courts could interpret *Miller* narrowly to maximize the benefit to the juveniles who are more likely to have diminished culpability and minimize the intrusion on states' rights.

A. Issues with the Decision

While some legal commentators say the *Miller* Court "misinterpreted [Roper and Graham's] explicitly narrow holdings,"[130] this Comment contends that the interpretation of the science actually led the Court astray.[131] In response to *Roper*, the dissent[132] and some legal commentators observed that the Court accepted

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124. *See Graham* AMA Brief, *supra* note 71, at 21–22 (noting brain maturation is incomplete until early adulthood.)

125. *Infra* Part III.C.

126. *See e.g.*, TEXAS LEGISLATIVE BUDGET BOARD, STATEWIDE CRIMINAL JUSTICE RECIDIVISM AND REVOCATION RATES, TEXAS LEGISLATIVE BUDGET BOARD (Jan. 2013), *available at* http://www.lbb.state.tx.us/Public_Safety_Criminal_Justice/RecRev_Rates/statewide%20Criminal%20Justice%20Recidivism%20and%20Revocation%20Rates2012.pdf (on file with the *McGeorge Law Review*) (discussing recidivism).

127. *Infra* Part III.B.

128. *Miller* APA Brief, *supra* note 76 at 9–10 (stating "the brain continues to develop throughout adolescence and young adulthood").

129. *See* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2457–2458 (2012).

130. *Lenient Approach*, *supra* note 108, at 1074.

131. *See infra* Part III.A. One critic went so far as to suggest that the court was "enchanted with the authoritative trappings of scientific data" and, as a result, "cited neuroscience research in an unreliable or disingenuous manner." *The Supreme Court Misunderstands*, *supra* note 6, at 445.

132. Roper v. Simmons, 543 U.S. 551, 616–617 (2005) (Scalia, J., dissenting).

certain scientific research[133] without deciphering how the research—including some science called into question even before the case was heard[134]—supported its findings.[135] Others noted the Court took information contained in a few key amicus briefs—one of which included misquoted source data[136]—at face value.[137] Despite these critiques, the Court cited the same science in *Graham*,[138] again raising concerns that the decision was "promoting legal uncertainty and fueling a misguided ideology of adolescent immaturity [and that those] costs may be amplified in upcoming years if the Court extends *Graham* beyond its narrow confines."[139] Of course, the Court did extend *Graham's* holding two years later in *Miller*.[140]

The aforementioned "misguided ideology of adolescent immaturity" stems from the Court's application of science at the intersection of the criminal justice system and juvenile crime.[141] This science has such a strong appeal because members of society may want to believe that a teen's bad behavior is not the result of making the wrong choice because the teen is "bad," but rather because the teen is suffering the effects of transient biology.[142] Since the time the Court decided *Roper*, however, critics have questioned the social scientific research upon which the Court relied.[143] Recent scientific journals include claims that (1) the scientists running some social psychological studies do not properly understand statistics, (2) some segments of the field work within a "sloppy research culture," (3) there is pressure for "researchers to leave unwelcome data out of their papers," and (4) even reputable "journals [are] print[ing] results that

133. *See The Role of Science, supra* note 5, at 354 (discussing the Court's reliance on the briefs which presented scientific data). *See also The Supreme Court Misunderstands*, *supra* note 6, at 444.

134. For example, the *Roper* Court claimed the "character of a juvenile is not as well formed as that of an adult," and cited only Erik Erikson's book *Identity: Youth and Crisis*. *Roper*, 543 U.S. at 570. However, Erikson's work is often criticized and was deemed "outmoded," in 1968. Deborah W. Denno, *The Scientific Shortcomings of* Roper v. Simmons, 3 OHIO ST. J. CRIM. L. 379, 391, 395 (2006) [hereinafter *Scientific Shortcomings*].

135. *Scientific Shortcomings*, *supra* note 134, at 384.

136. *Id.* at 385–86. The Court, citing *Miller* APA Brief, *supra* note 76, states "adolescents are overrepresented statistically in virtually every category of reckless behavior." *Roper*, 543 U.S. at 569. However, the full quote from which the APA took this statement starts with "the storm and stress popularly thought to be characteristic of adolescence have been exaggerated and that adolescence is not necessarily a tumultuous period of development. . . ." Jeffrey Arnett, *Reckless Behavior in Adolescence: A Developmental Perspective*, 12 DEVELOPMENTAL REV. 339, 339 (1992).

137. *See Scientific Shortcomings*, *supra* note 147, at 381.

138. Graham v. Florida, 560 U.S. 48, 50 (2010).

139. *Juvenile Criminal Responsibility*, *supra* note 10, at 315. *See also* Fondacaro, *supra* note 69, at 420 (stating "recent interdisciplinary scholarship has begun to question its [the "diminished culpability model" used by *Miller*] scientific and legal basis and its moral legitimacy.).

140. *See generally* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2469 (2012) (relying on the brain science to extend the "children are different" case law).

141. *Juvenile Criminal Responsibility*, *supra* note 10, at 315.

142. BRAINWASHED, *supra* note 6, at xv.

143. *Infra* Part III.A.

are obviously too good to be true."[144] Given the recent rise of this social science criticism, this Comment has been unable to explore which social science studies critics claim are flawed. However, given how widespread the criticism has become,[145] studies vulnerable to such denunciation may have influenced the *Miller* Court.[146]

In light of the weight the *Miller* Court assigned to the neuroscientific data,[147] it is important to note that some critics have raised questions about the ability of fMRI[148] studies (the type of studies relied upon in *Miller*) to produce any indicia of reliability, especially with regard to peer review results and the rate of error in performing the tests.[149] Critics claim fMRI has "no theory of information,"[150] meaning that analyzing the results produced is difficult.[151] Other research that points out neuroscience as a whole has a low "statistical power" bolsters these claims.[152] While most researchers hope to see a statistical power of at least eighty,

144. Martin Enserink, *Final Report: Stapel Affair Points to Bigger Problems in Social Psychology*, SCIENCE INSIDER (Nov. 28, 2012) *available at* http://news.sciencemag.org/people-events/2012/11/final-report-stapel-affair-points-bigger-problems-social-psychology (on file with the *McGeorge Law Review*). Within any professional community, published articles lay the foundation for the basic industry consensus. *See e.g.*, American Psychological Association, *APA and Affiliated Journals*, AMERICAN PSYCHOLOGICAL ASSOCIATION (last viewed Jan. 13, 2014), http://www.apa.org/pubs/journals/ (on file with the *McGeorge Law Review*) (noting "[t]his journal is committed to publishing conceptual models, investigative methodologies, and intervention strategies to help understand, study, and influence the world's major mental health problems."). As this basic industry consensus, in turn, supported the contentions of the briefs in favor of leniency for juvenile murders, there is reason now to evaluate the claims with heightened scrutiny. *See e.g., Miller* APA Brief, *supra* note 76, at 25 (stating "[a]lthough most of this [neuroscience] work has appeared just in the last 10 years, there is already strong consensus among developmental neuroscientists about the nature" of these changes."). Admittedly, even widely-accepted science has some detractors. *The Role of Science, supra* note 5, at 356–357.

145. *See id*.

146. *See e.g., Miller* APA Brief, *supra* note 76, at 9, 12–14, 30 (citing journals as the source of the information, without tracing back to the actual study).

147. *The Role of Science, supra* note 5, at 358 (noting the *Miller* Court "saw its position as even more scientifically justified" because of the neuroscience).

148. fMRI (functional magnetic resonance imaging) is the type of brain scanning referenced in *Miller*. *Miller* APA Brief, *supra* note 76, at 17.

149. *See infra*, Part III.B. This Comment's author was unable to find any legal discussion on the subject of fMRI meeting the Daubert standard for admissibility in the context at issue, however critics argue that fMRI would not meet the Daubert standard in the context of fMRI-based lie detection. Schauer, *supra* note 1, at n. 39

150. "Theory of information," as used above, is described as such: "In the context of fMRI; most of this research assumes that the hard work of cognition is done entirely in the head. . . . However, in the real world, structure in light contains a lot of that information, but an object structures light differently than a picture of that object. [These differences] are typically neglected in fMRI research. . . ." Email from Andrew Wilson, Psychologist, Leeds Metropolitan University, to Devina Douglas, McGeorge Law Review Staff Writer (Jan. 8, 2014, 6:25 PST) (on file with the *McGeorge Law Review*).

151. Andrew Wilson & Sabrina Golonka, *On Why fMRI is Bullshit*, NOTES FROM TWO SCIENTIFIC PSYCHOLOGISTS (Mar. 30, 2012), http://psychsciencenotes.blogspot.com/2010/03/on-why-fmri-is-bullshit.html (on file with the *McGeorge Law Review*).

152. Greg Miller, *Many Neuroscience Studies May Be Based on Bad Statistics*, WIRED.COM (Apr. 15, 2013), http://www.wired.com/wiredscience/2013/04/brain-stats/ [hereinafter *Bad Statistics*] (on file with the *McGeorge Law Review*). The statistical power is a measure of a study's ability to detect the effect if an effect really exists. "The more people in the study and the bigger the size of the effect, the higher the statistical power." *Id*. The higher the statistical power, the better. *See id*. "Underpowered studies are more likely to miss

a recent study found "roughly half of the neuroscience studies [evaluated] had a statistical power below twenty percent"—meaning only twenty percent of the time the studies detected a real effect[153]—with those numbers dropping even lower, to only eight percent, when the study evaluated human neuroimaging studies like fMRI.[154] Such numbers suggest the neuroscientific studies on which the Court relied may have inaccurately portrayed the workings of the juvenile brain.[155]

In addition, serious use of fMRI imaging is "barely out of its infancy,"[156] so "the half-life of facts [derived from such a new science] can be especially brief."[157] These flaws have led commentators to question whether the scientific community is "overgeneraliz[ing] the lack of self control among adolescents."[158] Other critics go further, asserting that no fMRI study has "establishe[d] a causal relation between the properties of the brain being examined and the problems we see in teens."[159] Lastly, at least one critic has noted the relevant studies were incomplete because they failed to make "comparisons of criminal and noncriminal adolescents," meaning "we do not know whether or the extent to which the level of functioning of the typical adult offender is distinguishable from the typical or 'average' adolescent."[160] At the very least, scientists have been reticent to extrapolate in-lab results to real-world settings,[161] specifically where the data will influence policy,[162] and scientists have advocated for the court to take into account the diminished accountability of a juvenile only when the

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genuine effects, and as a group they're more likely to include a higher proportion of false positives — that is, effects that reach statistical significance even though they are not real." *Id*.

153. *Id.* (describing a study by Marcus Munafò, a psychologist at the University of Bristol, United Kingdom).

154. *Id.* One infamous example of the unreliability of fMRI includes researchers detecting brain activity in a dead, frozen fish. Maggie Koerth-Baker, *What A Dead Fish Can Teach You About Neuroscience And Statistics*, BOINGBOING.NET (Oct. 2, 2012), http://boingboing.net/2012/10/02/what-a-dead-fish-can-teach-you.html (on file with the *McGeorge Law Review*).

155. *See generally Bad Statistics*, *supra* note 152.

156. BRAINWASHED, *supra* note 6, at xii.

157. *Id.*

158. Johansson et al., *CNS 2013 Press Release: Memory, the Adolescent Brain, and Lying: Understanding the Limits of Neuroscientific Evidence in the Law*, COGNITIVE NEUROSCIENCE SOCIETY (Apr. 16, 2013), *available at* http://www.cogneurosociety.org/cns-2013-press-release-memory-the-adolescent-brain-and-lying-understanding-the-limits-of-neuroscientific-evidence-in-the-law/ [hereinafter *Limits of Neuroscientific Evidence*] (on file with the McGeorge Law Review) (quoting B.J. Casey of Cornell's Weill Medical College).

159. Robert Epstein, *The Myth of the Teen Brain*, SCIENTIFIC AMERICAN MIND 60 (Apr/May 2007) [hereinafter *The Myth of the Teen Brain*].

160. Fondacaro, *supra* note 69, at 421.

161. *Limits of Neuroscientific Evidence*, *supra* note 158 ("[i]t's a big leap to go from a laboratory setting, in which impulse control may be measured by one's ability to not press a button in response to a stimulus, to the real-world, where the question is whether someone had requisite self-control not to tie up an innocent person and throw them off a bridge.").

162. *See* Carolyn Y. Johnson, *Brain Science vs. Death Penalty*, BOSTON GLOBE B5 (Oct. 12, 2004).

juvenile is making "decisions in the heat of the moment. . . . "[163] Until the science is more developed, the decision should be left to the legislatures.[164]

Justice Thomas's *Miller* dissent acknowledges that the *Roper* Court relied, in part, on intuition to find that those under eighteen were less culpable than adult offenders.[165] Perhaps because the science presented supports the Court's intuition about adolescents, as opposed to being a cutting edge scientific discovery that seems counterintuitive, the Court gave the science more weight than it should have.[166] Intuition plays a significant role in our legal system;[167] however, some legal observers link the concept of intuition with subjectivity, "contrast[ing it] unfavorably with objectivity in decision-making."[168] Nonetheless, some commentators postulate that "in complex cases [the court nearly always] inevitably works backward from the result to the rule."[169]

In the neuroscientific community, the phenomenon of working from result to rule is called "reverse inference, a common practice wherein investigators reason backward from neural activation to subjective experience."[170] While using reverse inference is not frowned upon within the scientific community *provided* it is merely one of the first steps in the research process, relying only on reverse inference opens the research up to errors.[171] Data suggests most of the high-profile neurologic studies, likely the ones serving as the Court's scientific foundation, "are the ones trafficking in conclusions based *solely* on reverse inference."[172] Evaluating the validity of these studies and their applicability to the legal system seems best reserved for the legislatures.[173]

Critics of the science discussed here worry that the media often shares fMRI images, "the now-iconic vibrant images one sees in the science pages of the daily newspaper" depicting portions of the brain lighting up in response to certain stimuli,[174] "out of context to create dramatic headlines."[175] In turn, these media

163. *Id.*

164. *See supra* Part II.A.

165. *Miller v. Alabama,* __ U.S. __, *132* S. Ct. 2455, 2483 (2012).

166. *See* BRAINWASHED, *supra* note 6 at 13 (discussing "reverse inference").

167. R. George Wright, *The Role of Intuition in Judicial Decisionmaking*, 42 HOUS. L. REV. 1381, 1384 (2006) [hereinafter Wright] (stating "intuition is invariably central . . . to the process of arriving at a judicial outcome."). Intuition plays such a role that critics of *Miller* have argued that finding "juveniles . . . less accountable based on . . .their developmental differences from adults, . . . is not an application of the scientific evidence to the legal standards for criminal responsibility; it is a value preference. . . . The decision merely reflects a value preference, gussied up perhaps in a facade of empirical science . . ." Fondacaro, *supra* note 69, at 427.

168. Wright, *supra* note 167, at 1388.

169. *Id.* at 1414.

170. BRAINWASHED, *supra* note 6 at 13 (internal quotation marks omitted).

171. *See id.* (emphasis added).

172. *See id.* (emphasis added).

173. *See, supra* Part II.A.

174. BRAINWASHED, *supra* note 6, at x.

reports unjustifiably allow society to assume the behavioral differences studied are the result of uncontrollable, biological urges and not bad decision-making.[176] This fear is not unfounded. "[I]n many quarters brain-based explanations appear to be granted some kind of inherent superiority over all other ways of accounting for human behavior."[177]

As discussed above, some scientists believe that the amygdala is among the last portions of the brain to mature, and because the amygdala produces quick, unconscious reactions, adolescents are prone to poor impulse control.[178] But there are alternate explanations of why the amygdala "light[s] up" in fMRI studies.[179] The amygdala does not only regulate impulse control, but also lights up when confronted with "things that are unexpected, novel, unfamiliar, or exciting."[180] Science, therefore, cannot unequivocally state amygdala immaturity equates to "rapid protective responses without conscious participation."[181] Adolescents may be processing new experiences (such as situations in which they are frightened, intimidated, or having to take a stand) that seem commonplace to adults.[182]

This position is bolstered by more universally accepted science telling us by the time we reach approximately age sixteen our logic and reasoning skills abilities are nearly fully developed;[183] although teens still need time to practice using these skills,[184] only a teen's self-regulation skills need time to mature.[185] Those sixteen and seventeen years old still make less-than-wise decisions because they are "less efficient than adults in processing information" and do not have the same level of experience in making important decisions.[186] In this vein, while *Miller* cited an increased susceptibility to peer pressure, leading to

175. Cliodhna O'Connor, Geraint Rees & Helene Joffe, *Neuroscience in the Public Sphere*, 74 Neuron 220, 225 (Apr. 26, 2012) [hereinafter O'Connor].

176. BRAINWASHED, *supra* note 6, at xv.

177. BRAINWASHED, *supra* note 6, at xix. British researchers evaluating neuroscientific articles concluded "logically irrelevant neuroscience information imbues an argument with authoritative scientific credibility." O'Connor, *supra* note 175, at 220.

178. *Roper* AMA Brief, *supra* note 72, at 12–13.

179. *See* BRAINWASHED, *supra* note 6, at 12. "There is virtually no direct evidence to support a relation between natural maturation in brain structure during adolescence and impulsive behavior." *Juvenile Criminal Responsibility*, *supra* note 10, at 361.

180. BRAINWASHED, *supra* note 6, at 12.

181. *Roper* AMA Brief, *supra* note 72, at 12–13.

182. BRAINWASHED, *supra* note 6, at 12. Another critic posits that "it is entirely possible that adults are less susceptible to peer influence because peers are less common features of their social context." Fondacaro, *supra* note 69, at 421.

183. Laurence Steinberg, *What the Brain Says About Maturity*, N.Y. TIMES (May 29, 2012), *available at* http://www.nytimes.com/roomfordebate/2012/05/28/do-we-need-to-redefine-adulthood/adulthood-what-the-brain-says-about-maturity [hereinafter *What the Brain Says*] (on file with *the McGeorge Law Review*).

184. *Keynote Address*, *supra* note 39, at 339.

185. *What the Brain Says*, *supra* note 183.

186. Elizabeth S. Scott & Laurence Steinberg, *Adolescent Development and the Regulation of Youth Crime,* 18 The Future of Children 15, 20 (2008).

decreased culpability,[187] statistics do not reflect the presumption that a juvenile is significantly more likely than not to commit a crime with his or her friends,[188] and the "peer pressure effect" peaks at age fourteen.[189] Without the pressure of his or her friends around to instigate heat-of-the-moment situations in which a person can be killed, [190] in most cases the juvenile in question should have ample time to process the information surrounding their actions, negating the effects of any impulsivity.[191]

Once young adults enter the teenage years, they are just as capable as adults at perceiving the given risk in a situation.[192] An adolescent's drive to engage in new experiences, however, is stronger than that same drive in adults, making their mental defects motivational not executive.[193] So, while adolescents engage in the same risk/reward balancing as adults do, "adolescents may discount risks and assign greater weight to the rewards of a choice than do adults."[194] Under this logic, if the legal system wants to discourage criminal behavior, perhaps the best course of action would be to ensure states, via their legislatures, have the freedom to experiment with which penalties work best to deter their youth from crime; this might include imposing harsher penalties on juveniles than those imposed on adults for the same crime.[195] Despite this, *Miller* altered the Court's stance on the deterrent effect of punishment,[196] removing that decision from the

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187. Miller v. Alabama*, __ U.S. __, 132* S. Ct. 2455, 2464 (2012). The susceptibility to peer pressure peeks at approximately age fourteen. LAURENCE STEINBERG AND KATHRYN C. MONAHAN, AGE DIFFERENCES IN RESISTANCE TO PEER INFLUENCE, NAT'L INST. OF HEALTH (Nov. 2007), *available at* http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2779518/ (on file with the *McGeorge Law Review*).

188. Office of Juvenile Justice and Delinquency Prevention, *Juvenile Offenders and Victims: 2006 National Report*, U.S. DEP'T OF JUSTICE 69 (Mar. 2006), *available at* http://www.ojjdp.gov/ojstatbb/nr2006/downloads/NR2006.pdf (on file with the *McGeorge Law Review*) (stating forty-six percent of juvenile murders commit their crimes solo and fifty-four percent commit their crimes with a partner).

189. *Keynote Address*, *supra* note 39, at 341.

190. *See id.* (stating "that young offenders are far more likely than adults to commit crimes in groups.").

191. *See Limits of Neuroscientific Evidence*, *supra* note 158 (noting court should take impulsivity into account only when decisions must be make in the "heat of the moment.").

192. *See* Laurence Steinberg, *Risk Taking in Adolescence: What Changes and Why?,* 1021 ANNALS N.Y. ACAD. SCI. 51, 52–55 (2004) (stating "after age thirteen there are no age differences in risk perception.") [hereinafter *Risk Taking in Adolescence*]. "It is difficult to reconcile . . . increased maturity with the theory that adolescent risk-taking occurs because of immature cognitive control systems." Gregory S. Berns et al., *Adolescent Engagement in Dangerous Behaviors Is Associated with Increased White Matter Maturity of Frontal Cortex*, PLOS ONE 7 (Aug. 2009).

193. *Risk Taking in Adolescence*, *supra* note 192, at 52–55; *Keynote Address*, *supra* note 39, at 343; *The Supreme Court Misunderstands*, *supra* note 6, at 487 (noting "teenagers do not literally lack the capacity to control their impulses.").

194. *Keynote Address*, *supra* note 39, at 343 (2006).

195. *See e.g.,* Moin A. Yahya, *Deterring Roper's Juveniles: Using A Law and Economics Approach to Show That the Logic of Roper Implies That Juveniles Require the Death Penalty More Than Adults*, 111 PENN ST. L. REV. 53, 53–54 (2006) (stating "If indeed juveniles are risk-lovers . . . then the proper response is to increase the penalties that juveniles face."). There is research however, stating the certainty of punishment is more important than the severity of that punishment in achieving a deterrent effect. Anthony N. Doob & Cheryl Marie Webster, *Sentence Severity and Crime: Accepting the Null Hypothesis,* 30 CRIME & JUST. 143 (2003).

196. *See infra* Part III.C.

state legislatures.[197] While the *Roper* Court "reasoned that the death penalty was not needed . . . in part because [LWOP] was available,"[198] *Miller* states the threat of LWOP would have no deterrent effect on juveniles.[199] Yet, no matter how much weight the "reward"—the thrill of engaging in the criminal activity or the peer approval[200]—is afforded, the types of behaviors that could lead to a person's death should be assigned a substantial amount of risk.[201] Obvious risks include prison time,[202] the risk to the offenders' own lives, safety and welfare, and the risk to others.[203] As a result, where homicide crimes are involved, it is not unreasonable to expect that these teens find the risk outweighs even an increased reward.[204]

Lastly, nowhere else in the law has the Supreme Court "held that states must allow a particular substantive defense, like insanity,"—another biologically based condition—to mitigate culpability,[205] despite scientific research indicating the insane "cannot conform [their] conduct to the requirements of the law."[206] Commentators have argued, "criminal law is grounded in the idea that offenders have free will to choose whether to commit crimes."[207] And while that concept may not apply in all cases, such as cases of insanity, our legal system "often compromises consistency and coherency when protection of the public requires abandoning [that] principle."[208]

In his concurring opinion in *Graham*, decided two years before *Miller*, Chief Justice Roberts stated, "there is nothing inherently unconstitutional about imposing sentences of [LWOP] on juvenile offenders; rather, the constitutionality of such sentences depends on the particular crimes for which they are imposed."[209] Murder is the most severe crime recognized under our laws.[210]

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197. *See supra* Part II.C.

198. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2481 (2012) (internal quotation marks omitted).

199. *Id.* at 2465 (noting "the same characteristics that render juveniles less culpable than adults . . . make them less likely to consider potential punishment") (internal quotation marks omitted).

200. *Keynote Address*, *supra* note 39, at 343.

201. *See Uniform Crime Report Crime in the United States, 2012: Offenses Cleared*, U.S. DEP'T OF JUSTICE 2 (Fall 2013) [hereinafter *Uniform Crime Report*] (detailing the specifics of how often certain types of offenders are caught).

202. *See id*. ("28.1 percent of robbery offenses," "22.0 percent of larceny-theft offenses, 12.7 percent of burglary offenses, and 11.9 percent of motor vehicle theft offenses" and "20.4 percent of arson offenses were cleared," whereas "62.5 percent of murder" and non-negligent manslaughter crimes are cleared.).

203. *See Miller*, __ U.S.__, 132 S. Ct. at 2476 (Breyer, J., concurring) (discussing "dangerous felon[ies]").

204. *See Uniform Crime Report*, *supra* note 201, at 2 (discussing the chances the offenders will get caught).

205. *Finding Coherence*, *supra* note 15, at 899. This article also notes that in *Clark v. Arizona*, the Court announced "[w]e have never held that the Constitution mandates an insanity defense." *Id*. at 919 (citing *Clark*, 548 U.S. 735, 752 n.20).

206. *Id.* at 899.

207. *Id.* at 921.

208. *Id.* at 899.

209. Graham v. Florida, 560 U.S. 48, 94 (2010) (Roberts, C.J., concurring) (emphasis removed).

Further, none of the relevant justifications that led to the Court pronouncing the *Solem v. Helm* sentence unconstitutional were present in *Miller*.[211] First, the *Miller* defendants were convicted of murder, a violent crime.[212] Second, in the states that use the death penalty, LWOP is not the harshest penalty given out for any offense.[213] And, third, many other states previously allowed JLWOP for homicide offenses.[214] Therefore, under the logic of *Graham*, *Solem,* and Scalia's opinion in *Harmelin* (that explicitly noted a sentence is not unconstitutional because it is mandatory),[215] there should have been nothing unconstitutional about Evan Miller or Kuntrell Jackson's LWOP sentence.[216]

Yet *Miller* justifies the deviation from precedent by announcing that *Harmelin* only pertains to adults.[217] Had the prosecution in *Miller* presented the science to the Court in the manner discussed throughout this subsection, the outcome might have been different. In *Roper, Graham*, and *Miller*, the defendants had the free will and the time to think things through, removing any possibility that they made rash decisions in the heat of the moment.[218] Under the reasoning proposed here, the Court might not have concluded any of the defendants lacked the real world experience to understand the consequences and the moral implications following from their actions.[219] In sum, the *Miller* Court might not have opted for a more lenient approach and given juveniles a way to further discount the risk of committing murder.[220]

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210. *See id.* at 50 (noting the "severity and irrevocability" or murder); *Juvenile Criminal Responsibility*, *supra* note 10, at 333 (stating "Homicide is, of course, generally regarded as the most heinous of crimes.").

211. See Solem v. Helm, 463 U.S. 277, 277 (1983).

212. Miller v. Alabama, __ U.S.__, 132 S. Ct. 2455, 2461, 2462 (2012).

213. States With and Without the Death Penalty, DEATH PENALTY INFORMATION CENTER (2014), *available at* http://www.deathpenaltyinfo.org/states-and-without-death-penalty (on file with the *McGeorge Law Review*).

214. *Miller*, __ U.S. at__, 132 S. Ct. at 2471.

215. Harmelin v. Michigan, 501 U.S. 957 (1991).

216. *Graham*, 560 U.S. at 94 (Roberts, J., concurring) (stating " . . . it is perfectly legitimate for a juvenile to receive a sentence of life without parole for committing murder.").

217. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2459 (2012).

218. Chris Simmons had time to reflect on his next actions as he drove to the train trestle. Roper v. Simmons, 543 U.S. 551, 556 (2005). Kuntrell Jackson had time to evaluate the potential consequences of his friend taking a shotgun to a store robbery. *Miller*, __U.S. __, 132 S. Ct. at 2461. Evan Miller had plenty of time to think about what he was doing as he doused the trailer with gasoline. *Id.* at 2462. Lastly, Terrance Graham and his friends held their victim at gunpoint for over thirty minutes. *Graham*, 560 U.S. at 54.

219. Would the Court have decided Roper lacked the experience to know throwing a bound woman off a train trestle would kill her? *Roper*, 543 U.S. at 556. Or that Miller lacked the experience to know setting fire to a trailer with an unconscious victim inside might kill the person? *Miller*, __ U.S. at __, 132 S. Ct. at 2462.

220. *See generally* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455 (2012) (noting juvenile risk taking). Also of note here is the theory that the Supreme Court failed to take into account "another principle that any parent would know: when children demonstrate poor judgment, those charged with morally educating them reprimand them precisely because this behavior reflects a moral defect for which the minor ought to be held accountable." *The Supreme Court Misunderstands, supra* note 6, at 444.

Further, some researchers have determined "[t]he immature brain that supposedly causes teen problems—is nothing less than a myth."[221] In an anthropological study of 186 preindustrial societies, researchers found that sixty percent of those countries did not recognize "adolescence;" the teens of those countries showed almost none of the "trademark" symptoms of the turmoil western civilizations have come to expect to accompany that time of life.[222] Rather, the study shows that turmoil is a result of western cultural influences,[223] and that "teenagers . . . become uncomfortable with the gap between their biological capabilities and the social rules they must follow as kids."[224] Further support comes from the fact that, historically, the teen years were peaceful years[225] and by age fourteen "children" were held fully accountable for their actions.[226] If the problem *is* biological, one would expect to see teens lacking responsibility, succumbing to peer pressure, and being impulsive and reckless in every other culture.[227] If, instead, the reason American teens suffer from "adolescent" problems is cultural, biology should not be used by the Court to support the proposition "children are different."[228] A culture-based explanation would also cut against the *Miller* holding in that legislatures are arguably the best body to determine punishments for violating social norms.[229]

In both *Roper* and *Graham*, the court reinforced its science-based holding that "children are different" by stating intuition supported the reasoning.[230] However, despite temptation to trust science that bolsters long standing intuition,[231] as it did in these cases, the purpose of science should not be to bolster

221. *The Myth of the Teen Brain*, *supra* note 159, at 58.

222. *Id.*

223. *Id.* at 59.

224. John Cloud, *The Teen Brain: The More Mature, the More Reckless*, TIME (Sept. 2, 2009), *available at* http://content.time.com/time/health/article/0,8599,1919663,00.html [hereinafter Cloud] (on file with the *McGeorge Law Review*).

225. *The Myth of the Teen Brain*, *supra* note 159, at 59 (positing "adolescent angst" is really "the result of . . . [the] 'artificial extension of childhood' past puberty. . . . [W]e have increasingly infantilized our young, treating older and older people as children while also isolating them from adults [through l]aws [which] have restricted their behavior.").

226. Christian Sullivan, *Juvenile Delinquency in the Twenty-First Century: Is Blended Sentencing the Middle-Road Solution for Violent Kids?*, 21 N. ILL. U. L. REV. 483, 486 (2001).

227. *See generally The Myth of the Teen Brain*, *supra* note 159.

228. *Compare The Myth of the Teen Brain*, *supra* note 159, at 59 (stating the problem is cultural), with Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2460, 2468 (2012) (stating the problem is biological).

229. *See infra* Part II.A.

230. *See Miller*, 132 S. Ct. at 2483 (Thomas, J., dissenting) (discussing the role intuition played in those cases).

231. *See Finding Coherence*, *supra* note 15, at 904 (stating "reliance on [scientific] data seems like a powerful rhetorical argument: the Court is no longer relying solely on a subjective sense that adolescents lack the same capacity for control as adults.").

what is intuitive, but rather to understand truth.[232] This Comment contends the courts would be best served by waiting until the science is solidified before making such sweeping changes to the legal landscape, preserving deference to the legislature in the meantime.[233]

B. Are the Brains of Sixteen to Eighteen Year-Olds So Different From Adult Brains?

As discussed above, fMRI brain scans reveal the average adolescent brain looks different than that of an adult.[234] Nonetheless, the issue the Court should have grappled with is whether this pictorial difference should be relevant to the discussion of criminal sentencing.[235] This is especially true given that society draws a distinction between the level of control over one's behavior needed to be morally responsible, and the lower level of control needed to be criminally responsible.[236] By the time they reach sixteen and seventeen years old, juveniles have not reached complete maturity, but have reached an advanced level of *mental* maturity.[237] For example, the brain of a juvenile in late adolescence is equally capable of intelligent thought as an adult,[238] and during the years of the most active pruning—ages thirteen to eighteen—only one percent of the grey matter is reduced per year.[239] Therefore, by this point, juveniles have reached sufficient maturity for the legal system to hold them as accountable as adults for homicide crimes.[240] In drawing the line between complete accountability and lessened culpability before complete brain maturity, the Court implied complete maturity is not a prerequisite for allowing mandatory LWOP.[241] Therefore, redrawing this line between partial and complete culpability is not a wholesale change in the application of the ruling; it is merely a tailored adjustment.

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232. Jacksonville State University, Psychology Department, *Characterization of What Science Is and Does (its definition)*, JACKSONVILLE STATE UNIVERSITY (Nov. 17, 2002), http://www.jsu.edu/depart/psychology/sebac/fac-sch/rm/Ch1-3.html (on file with the *McGeorge Law Review*).

233. *Supra* Part III.C.

234. *See supra* Part III.A.

235. See *infra* Part III.C.

236. Ken Levy, *Dangerous Psychopaths: Criminally Responsible but Not Morally Responsible, Subject to Criminal Punishment And to Preventive Detention*, 48 SAN DIEGO L. REV. 1299, 1339 (2011).

237. *See supra* Part III.A.

238. National Institute of Mental Health, *The Teen Brain: Still Under Construction*, NATIONAL INSTITUTES OF HEALTH, http://www.nimh.nih.gov/health/publications/ the-teen-brain-still-under-construction/index.shtml?utm_source=LifeSiteNews.com+Daily+Newsletter&utm _campaign=2c0fa9560b-LifeSiteNews_com_Intl_Full_Text_12_18_2012&utm_medium=email (last viewed Mar. 13, 2014) (on file with the *McGeorge Law Review*). *See also The Supreme Court* Misunderstands, *supra* note 6, at 479 (stating "a minor is approximately as equipped as an adult to identify a course of conduct as murder and to recognize that murder is both illegal and contrary to society's moral expectations.").

239. Frontline, *Inside the Teenage Brain*, PBS (Mar. 9, 2000) *available at* http://www.pbs.org/wgbh/pages/frontline/shows/teenbrain/work/adolescent.html (on file with the *McGeorge Law Review*).

240. *Supra infra* Part III.B.

241. *See* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2457–58 (2012).

The reason the admittedly arbitrary[242] line between complete and partial accountability could be pushed back to sixteen years of age centers around the science that suggests those sixteen to eighteen years old are, in some respects, just as mature as adults[243] and the Court's reasoning that the circumstances the defendant grew up in should have a bearing on the sentencing.[244] By sixteen, teens can control their friend groups, their attendance at school,[245] their participation in school activities and can remove themselves from situations where criminal activity is involved.[246] There is also an implicit acknowledgement in both our laws and social interactions that there is something about sixteen that is special, allowing states to draw an age-based line regarding when the state can sentence a juvenile to LWOP.[247] In most states, sixteen-year-olds can get driver's licenses.[248] In states that recognize it, a teen can be emancipated at sixteen.[249] Legal scholars begin to advocate for a pregnant woman's right to have an abortion without parental consent at sixteen because that is when "teens are at an advanced level of cognitive development."[250] After age sixteen, federal law allows juveniles to work any hours they would like.[251] And the distinction is also evident in basic hiring practices—employers feel those over sixteen are

242. *See* Roper v. Simmons, 543 U.S. 551, 574 (2005) (acknowledging the arbitrariness of lines in general).

243. *See infra* Part III.A.

244. *Miller,* __ U.S. at__, *132* S. Ct. at 2460, 2468. The concern over circumstances is relevant because "juveniles largely cannot control where they live, where they attend school, their exposure to crime and abuse, and the like. Because that lack of control places juveniles in circumstances where their developmental limitations are likely to come into play." *Constitutional Line Drawing, supra* note 36, at 93.

245. *See* STATE EDUCATION REFORMS, COMPULSORY SCHOOL ATTENDANCE LAWS, MINIMUM AND MAXIMUM AGE LIMITS FOR REQUIRED FREE EDUCATION, BY STATE: 2013, INSTITUTE OF EDUCATION SCIENCES, http://nces.ed.gov/programs/statereform/tab5_1.asp (last visited Dec. 14, 2013) (on file with the *McGeorge Law Review*) (only nineteen states require compulsory attendance in school until age eighteen; twenty-three states only require it until age sixteen).

246. *Miller,* __ U.S. at __, 132 S. Ct. at 2468.

247. Evan Miller, Petitioner v. Alabama., 2012 WL 928359 (U.S.), 9 (U.S. Oral. Arg., 2012) (noting "No state that has set a minimum age for life without parole has set it beneath the age of 15, other than one.").

248. Driver's License in the United States, *Wikipedia*, _http://en.wikipedia.org/wiki/Driver's license_in_the_United_states (last visited Jan. 2, 2013) (on file with the McGeorge Law Review). This despite car accidents causing more teenage deaths than any other cause. Centers for Disease Control, Teen Drivers: Fact Sheet, CTR. FOR DISEASE CONTROL (Oct. 2, 2012), *available at* http://www.cdc.gov/motorvehiclesafety/teen _drivers/teendrivers_factsheet.html [hereinafter CDC] (on file with the *McGeorge Law Review*).

249. *See, e.g.*, ALASKA STAT. ANN. § 09.55.590 (West 2010) (age 16); CAL. FAM. CODE § 7120 (West 2012) (age 14); CONN. GEN. STAT. ANN. § 46b-150 (West 2009) (age 16); KAN. STAT. ANN. § 38-108 (West 2000) (no particular age given); LA. CODE CIV. PROC. ANN. art. 3991 (West) (age 16); ME. REV. STAT. tit. 15, § 3506-A (West 2003) (age 16); MONT. CODE ANN. § 41-1-501(West 2010) (age 16); NEV. REV. STAT. ANN. § 129.080 (West 2010); OKLA. STAT. ANN. tit. 10, § 91 (West 2009) (no particular age given); TEX. FAM. CODE ANN. § 31.001 (West 2014); VA. CODE ANN. § 16.1-331 (West 2010) (age 16); W. VA. CODE ANN. § 49-7-27 (West 2001) (age 16).

250. Suellyn Scarnecchia & Julie Kunce Field, *Judging Girls: Decision Making in Parental Consent to Abortion Cases*, 3 MICH. J. GENDER & L. 75, 111 (1995).

251. 29 C.F.R. § 570.2(a) (2012); *but see* 29 C.F.R. § 570.35 (2012) (setting limitations on the hours those fourteen and fifteen can work).

inherently more trustworthy than even fifteen year olds.[252] All of this proves a long-standing social intuitiveness that once teens reach sixteen, their brains have developed enough they can take on certain responsibilities, many of which have potentially devastating effects.[253]

So are those sixteen to eighteen year-olds *so* developmentally different from adults that their sentences for homicide offenses should be different? The amicus brief submitted for the American Psychological Association in *Roper* stated, "[a]dults, for example, were better able to weigh the options available to resolve an issue,"[254] but the courts should not be evaluating juveniles on their ability to choose the best decision, merely the one that does not involve killing someone.[255]

Nonetheless, the *Miller* majority made the key point that adolescents have a greater capacity for change than adults.[256] Looking to whether the types of juveniles affected by *Miller*—those who commit homicide—show a greater capacity for change than adult homicide offenders is worthwhile. In the criminal context, perhaps the best indicator of this is recidivism rates.[257] Although *Miller* does not require any offender be released, increasing the chances these offenders could be paroled increases the chances they will have the opportunity to reoffend.[258]

In 2010, over half the prisoners in state correctional facilities were serving time for violent offenses,[259] with nearly fifteen percent of all offenders having

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252. *See* Amy White, *What is the Legal Age to Work?*, SNAGAJOB.COM, http://www.snagajob.com/resources/legal-age-to-work (last visited Dec. 22, 2013) (on file with *the McGeorge Law Review*) (listing numerous national employers who will hire those aged sixteen and up); *see also* email from Carlie Stephensen, small business owner, to author (Jan. 3, 2014, 9:17 AM) (on file with the *McGeorge Law Review*) (stating employers recognize it is about this age that we can trust them to be reliable workers).

253. More teens die in car crashes than by any other cause. CDC, *supra* note 248.

254. Brief for the American Psychological Association et al. as Amici Curiae at 8, Roper v. Simmons, 543 U.S. 551 (2004).

255. *See Limits of Neuroscientific Evidence*, *supra* note 158 (referring to question of whether a juvenile should be expected not to throw a woman off a bridge).

256. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2460 (2012). It is of note that critics of *Miller* are still debating whether juveniles do possess a greater capacity for change. *See e.g.*, Mark Fondacaro, *Rethinking The Scientific And Legal Implications Of Developmental Differences Research In Juvenile Justice*, 17 NEW CRIM. L. REV. 407, 422 (2014).

257. *See* Andrew D. Leipold, *Recidivism, Incapacitation, and Criminal Sentencing Policy*, 3 U. ST. THOMAS L.J. 536, 554 (2006) [hereinafter Leipold] ("Convicted defendants with a criminal history [and who have not changed their criminal ways] are by definition recidivists." "It is easy to believe that many repeat offenders are not caught the second time, making recidivism numbers systematically too low.").

258. *See generally* Christine S. Scott-Hayward, *The Failure of Parole: Rethinking the Role of the State in Reentry*, 41 N.M. L. REV. 421, 456 (2011) (discussing reoffending parolees). "[T]he fear of releasing . . . inmates who will offend again is well-grounded." Leipold *supra* note 257, at 553. It is this judgment that certain offenses demonstrate a defendant is such a long-term threat to society that justify a state's use of LWOP sentences. *See* Ashley Nellis, *Throwing Away the Key: The Expansion of Life Without Parole Sentences in the United States*, THE SENTENCING PROJECT 1 (Oct. 2010).

259. E. Ann Carson &William J. Sabol, *Prisoners in 2011*, U.S. DEPARTMENT OF JUSTICE, OFFICE OF JUSTICE PROGRAMS, BUREAU OF JUSTICE STATISTICS 1 (Dec. 2012), *available at* http://www.bjs.gov/content/pub/pdf/p11.pdf [hereinafter BUREAU OF JUSTICE STATISTICS] (on file with the *McGeorge Law Review*).

committed some type of homicide offense.[260] Yet juvenile offenders represent less than 0.2 percent of the total inmate population in the United States, meaning the internal processes that lead a person to kill are not isolated to the those who possess the mentally immaturity of youth.[261] Per their respective segments of the overall U.S. population, an adult is statistically twice as likely to commit a homicide offense as a juvenile sixteen or seventeen years old.[262] Additionally, the violent crime recidivism rates for juveniles mirror those of adults.[263] While these statistics do not prove a juvenile murderer will reoffend, thus warranting LWOP as a preventative measure to ensure public safety, they support the inference that by sixteen years old a juvenile's conviction for a violent crime is just as much of an indicator of "irreparable corruption"[264] as it would for an adult. As such, for the same reasons we allow state legislatures the discretion to evaluate the acts of adult offenders and deem a portion of the offenders ineligible to return to society,[265] the Court should have preserved deference to the legislatures to make this same determination with regard to the states' juvenile offenders.[266]

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260. *See id.* at 10 (stating roughly 157,400 murder and 16,900 manslaughter offenders were part of a total population of 1,209,130 prisoners).

261. *See id.* at 1 (stating the total U.S. inmate population in 2011 was 1,598,780 inmates); Equal Justice Initiative, Children in Adult Prison, EQUAL JUSTICE INITIATIVE (2012), *available at* http://www.eji.org/childrenprison [hereinafter EQUAL JUSTICE INITIATIVE] (on file with the *McGeorge Law Review*) (stating almost 3,000 juveniles are incarcerated in adult prison as of 2012). Based on data from the 2010 census, 2.8 percent of the U.S. population is aged sixteen and seventeen. Lindsay M. Howden & Julie A. Meyer, *Age and Sex Composition: 2010*, U.S. DEPARTMENT OF COMMERCE- ECONOMICS AND STATISTICS ADMINISTRATION (May 2011).

262. Almost 3,000 juveniles were incarcerated in adult prison as of 2012. Equal Justice Initiative, *supra* note 261. There are just over eight million juveniles aged sixteen and seventeen in the U.S.. BUREAU OF JUSTICE STATISTICS, *supra* note 261, at 2. These facts combine to reflect that any given sixteen-to-eighteen ear-old has a 0.04-percent chance of being a homicide offender. 157,400 murder and 16,900 manslaughter adult offenders are in our prisons. *Id.* at 10. There are roughly 209,000,000 adults in the U.S. *Id.* at 2. These facts combine to reflect that any given adult has a 0.08-percent chance of being a homicide offender.

263. *Compare* Doris J. James, *Profile of Jail Inmates, 2002*, U.S. DEP'T OF JUSTICE 7 (July 2004), *available at* http://www.bjs.gov/content/pub/pdf/pji02.pdf [hereinafter USDOJ] (on file with the *McGeorge Law Review*) (stating 25.6 percent of adult inmates are violent recidivists), *with* Howard N. Snyder Melissa Sickmund, Juvenile Offenders and Victims: 2006 National Report, NATIONAL CENTER FOR JUVENILE JUSTICE 71 (Mar. 2006), *available at* http://www.ojjdp.gov/ojstatbb/nr2006/downloads/NR2006.pdf (on file with the *McGeorge Law Review*) (stating twenty-seven percent of juveniles aged sixteen and seventeen will recidivate when they are aged eighteen and nineteen).

264. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2469, 183 L. Ed. 2d 407 (2012) (using this term to describe the juveniles who will become serious repeat offenders).

265. For example, a study by Marvin Wolfgang determined that "in a study of arrests of males born in Philadelphia in two selected years, that 7 percent of those males committed two thirds of all violent crimes, three fourths of the rapes, and virtually all of the murders." Brackett B. Denniston, III, *Getting Tough On Crime: Does It Work?* BOSTON BAR JOURNAL, 26 n.7 (Mar/Apr 1994) (citing P.S. Tracy, M.S. Wolfgang & R.M. Figler, *Delinquency Careers in Two Birth Cohorts*, 879–80 (1960)).

266. *See supra* Part II.A.

Looking at the age at which murderers statistically kill[267] provides evidence a juvenile homicide offender's crime is actually "more suggestive of human depravity than the same crime committed at the age of twenty-five."[268] This proposition is backed up by data, admittedly subject to the same concerns regarding its validity as the science the *Miller* Court used, showing violent offenders are more cerebrally mature than their non-violent counterparts.[269] This is because the brains of reckless teens have "more mature frontal white matter tracts" than their not-so-reckless peers.[270] The reason proffered for why teens with more mature brains would act recklessly is that they are "trying out more adultlike roles."[271] Additionally, although "the peak age for crime in America today is seventeen, the peak age for violent crime" occurs in the adult years.[272] When one couples the evidence indicating a juvenile aged sixteen-plus who commits a homicide (1) has a brain capable of nearly fully developed logic and reasoning skills,[273] (2) is just as likely as an adult to reoffend,[274] and (3) is more mature than the average sixteen year-old, with the fact that the Court will not review the propriety of a state to issue adult LWOP sentences, it makes sense the Court should avoid reviewing a state's decision to issue LWOP sentences to sixteen and seventeen year-olds.[275]

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267. *See* ALEXIA COOPER & ERICA L. SMITH, HOMICIDE TRENDS IN THE UNITED STATES, 1980–2008 (2011), U.S. DEP'T OF JUSTICE 3, *available at* http://www.bjs.gov/content/pub/pdf/htus8008.pdf (on file with the *McGeorge Law Review*). Per 100,000 members of their respective segment of the community, 15.0 of those aged fourteen to seventeen have been convicted of a homicide offense. This value then jumps over two and a half times for those in the aged eighteen-to-twenty-four, and is still over double for those in the aged twenty-five to thirty-four. *Id.*

268. *Juvenile Criminal Responsibility*, *supra* note 10, at 362.

269. *Id.* at 339, 360–61 (citing Gregory S. Berns et al., *Adolescent Engagement in Dangerous Behaviors Is Associated with Increased White Matter Maturity of Frontal Cortex*, PLOS ONE, 1, 5–6 (Aug. 2009). This notion is arguably corroborated by the sentencing judge in the *Miller* case commenting on Evan Miller's "sophistication and maturity" and the amount of planning and leadership that went into Simmons' crime. Joint Appendix, Vols. I–II, Graham v. Florida, 130 S. Ct. 2011 (2010) (No. 08-7412), 2009 WL 2163259 & 2009 WL 2163260 Roper v. Simmons, 543 U.S. 551, 556 (2005) (Simmons was the leader of the boys and planned the crime out in advance.).

270. *Juvenile Criminal Responsibility*, *supra* note 10, at 360–61 (citing Gregory S. Berns et al., *Adolescent Engagement in Dangerous Behaviors Is Associated with Increased White Matter Maturity of Frontal Cortex*, PLOS ONE, 1, 5–6 (Aug. 2009). Cloud, *supra* note 224.

271. Cloud, *supra* note 224.

272. *Juvenile Criminal Responsibility*, *supra* note 10, at 362.

273. *What the Brain Says*, *supra* note 183.

274. *See* USDOJ, *supra* note 263, at 6 (discussing recidivism). Although the numbers vary by state, the statistics say between sixty-three and seventy-six percent of juvenile offenders will rearrested within two years, with between forty-two and sixty-five percent reconvicted within that same timeframe. OCFS Fact Sheet, Recidivism Among Juvenile Delinquents and Offenders Released from Residential Care in 2008, N.Y. STATE OFFICE OF CHILDREN AND FAMILY SERV. (Oct. 2011), *available at* http://www.ocfs.state.ny.us/main/detention_reform/Recidivism%20fact%20sheet.pdf (on file with the *McGeorge Law Review*).

275. Harmelin v. Michigan, 501 U.S. 957, 977–984 (1991).

C. No Perfect Answer

There is no perfect answer to the problem presented by juveniles committing heinous crimes. As Justice Scalia acknowledged, society cannot define murder as normal "risky or antisocial" adolescent behavior.[276] In order to resolve the tension between the spirit of the holding in *Miller*—that all adolescents should be granted a chance at avoiding spending their entire lives in prison[277]—and the ways some courts have implemented the holding—sentencing offenders to likely-lifelong sentences[278]— the Court should reevaluate the decision and return some discretion to state legislatures. This is especially true given the cyclical nature of American public opinion on the subject of criminal sentencing.[279] Making rigid constitutional rules on the subject of sentencing juvenile murderers forecloses the possibility of states taking firm stances on such sentencing should the tide of public opinion change again in another decade or two.[280]

The Court is inclined to overturn precedent when "facts have . . . changed, or [have] come to be seen . . . differently."[281] In light of the scientific evidence supporting the contention that by sixteen a juvenile has reached an advanced, albeit incomplete, level of maturity,[282] and the general questions as to whether or not fMRI research can be trusted in this context,[283] the understanding of the factual underpinnings the *Miller* decision was based upon may have changed.[284]

Thus, until fMRI science is proven reliable, the Court should defer to the state legislatures to make pronouncements regarding sentencing[285] except where the juvenile offender is quite young or truly does have the twice-diminished culpability recognized in *Graham*.[286] Therefore, the *Miller* pre-sentencing

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276. Roper v. Simmons, 543 U.S. 551, 618 (2005) (Scalia, J., dissenting).

277. *See generally* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455 (2012) (discussing adolescents diminished culpability).

278. *See e.g.*, Walle v. Florida, 99 So.3d 967 (2012) (sentencing juvenile Walle to a sixty-five year sentence).

279. *Compare* Loretta Stalans & Shari Seifman Diamond, *Formation and Change in Lay Evaluations of Criminal Sentencing*, 14 LAW AND HUM. BEHAV. 199 (1990) (discussing that public opinion polls conducted in the late 1980s reveal a consensus that criminal sanctions are too lenient) *with* Sarah Glazer, *Are Mandatory Sentences Too Harsh?*, CQ RESEARCHER (Jan 10, 2014) (discussing that today the consensus of opinion is that sentences are too harsh), *available at* http://photo.pds.org:5012/cqresearcher/document.php?id=cqresrre2014011000&PHPSESSID=qalmed6j76v7bvjhr1jf0q77u3#.UtVLEZ5dXpU (on file with the McGeorge Law Review).

280. *See supra* Part II.A.

281. Planned Parenthood v. Casey, 505 U.S. 833, 855 (1992) (discussing when the courts should overturn previous precedent).

282. *See supra* Part III.B.

283. *See supra* Part III.A.

284. *See supra* Part III.A.

285. At the time of *Roper*, some members of the court recognized that as a result of conflicting data, the Courts are not in a position to determine which studies to trust. *The Role of Science, supra* note 5, at 354 (quoting Justice Scalia).

286. Graham v. Florida, 560 U.S. 48, 50 (2010).

evaluation factors should only apply categorically to those under sixteen, and young adults sixteen and seventeen years of age convicted under an aiding and abetting[287] or accomplice theory, [288] or of felony murder. [289] This approach could be adopted without overturning the cases already part of the "children are different" movement;[290] in the cases where the juvenile defendant was found guilty an aiding and abetting or accomplice theory, society has more reason to believe the juvenile was acting under the influence of the other "negative influences in their whole environment."[291] Where the juvenile was convicted of felony murder, the legal should infer the resulting death was in part due to the juvenile's "lack of control over his or her immediate surroundings."[292] Limiting *Miller* in this way would help to address the issues raised in the dissenting and concurring opinions, creating a ruling that was not decided by a simple majority,[293] giving the decision more weight.[294] Not only would the Court be approaching a "discernible end point" to the ways in which juveniles were treated differently in the eyes of the criminal law system,[295] the change would help to stem the "judicial displacement of the legislative role in prescribing appropriate punishment for crime."[296]

Justice Robert's dissent expressed concern that "a 17–year–old [] convicted of deliberately murdering an innocent victim" should be allowed to be sentenced to a mandatory LWOP sentence,[297] recognizing the importance of protecting the public.[298] Under the rule proposed above, that hypothetical seventeen-year-old heinous murderer would be fully eligible for mandatory LWOP should the state legislature demand it, as was such under previous sentencing precedent.[299] "The

287. The courts can convict a person of a homicide offense under an aiding and abetting theory if the person acted "to encourage, advise, or instigate the commission of a crime" that resulted in a death. 1 WHARTON'S CRIMINAL LAW § 29 (15th ed.)

288. Convictions under an accomplice theory of liability hold the defendant accountable for murder if any criminal accomplice caused a death. *Supra* Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2477, (2012) (Breyer, J., concurring) (quoting ARK. CODE ANN. § 5–10–101(a)(1) (1997)).

289. The theory of felony murder rests on the idea the criminal justice system can "attribute[a] death caused in the course of a felony to all participants who intended to commit the felony, regardless of whether they killed or intended to kill." Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2476 (2012) (Breyer, J., concurring).

290. Miller and Jackson were each fourteen. *Id.* at 2461–62 (2012). Thompson was fifteen. Thompson v. Oklahoma, 487 U.S. 815, 108 S. Ct. 2687 (1988). Despite Simmons being seventeen at the time of his offense, he was convicted of first-degree murder. Roper v. Simmons, 543 U.S. 551, 557 (2005). Graham was sixteen, but convicted of robbery, not homicide. Graham v. Florida, 130 S. Ct. 2011, 2019– 20 (2010).

291. *See* Roper, 543 U.S. at 553.

292. *Id.*

293. *Miller*, __ U.S. at __, 132 S. Ct. at 2455 (a 5-4 decision).

294. *See* Cohen, *supra* note 69 (stating "I wondered at the time whether, in some way, their roles as parents would impact their perceptions of the issues raised in the case. Now I have my answer."

295. *See Miller*, __ U.S. at __, 132 S. Ct. at 2481 (Roberts, C.J., dissenting).

296. *See id*. at 2481 (Roberts, C.J., dissenting).

297. *Id.* (Roberts, C.J., dissenting).

298. *Id.* at 2478 (Roberts, C.J., dissenting).

299. *See infra* Part II.C.

question of what acts are 'deserving' of what punishments is bound so tightly with questions of morality and social conditions as to make it, almost by definition, a question for legislative resolution."[300]

While the *Miller* Court did not recognize that mandatory LWOP sentences could serve penological goals, various state legislatures have opted to use such punishment to further retribution- and deterrence-based goals.[301] Based on the ideas presented in Part III.B, and also justifying incapacitation, evidence supports a state's stance that as violent offenders frequently reoffend, even juvenile homicide perpetrators deserve mandatory LWOP.,[302] Concurring in *Harmelin,* Justices Scalia and Thomas wrote, "[t]he Eighth Amendment is not a ratchet, whereby a temporary consensus on leniency for a particular crime fixes a permanent constitutional maximum, disabling the States from giving effect to altered beliefs and responding to changed social conditions."[303] Yet, by banning mandatory LWOP in *Miller*, the Court serves to effectively shut down "public, democratic debate about the propriety of such a sentence,"[304] a discussion in which at least twenty-eight states would like to engage.[305] Stifling this discussion prevents states from addressing these "altered beliefs" and changing social conditions.[306] However, by retaining categories in which the states are allowed to use the mandatory sentencing systems they have established, a state retains wide latitude in determining the penological punishments for its offenders, helping to address the important federalism concerns the *Miller* decision raised.[307]

Rulings that prevent state legislatures from determining what sentences to hand out to criminals who have committed heinous crimes and have reached an age when society expects them to have achieved certain levels of responsibility

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300. Graham v. Florida, 560 U.S. 48, 120, 130 S. Ct. 2011, 2056 (2010) (Thomas, C.J., dissenting). This is so as "determining the appropriate sentence for a teenager convicted of murder presents grave and challenging questions of morality and social policy." *Miller, __ U.S. at __, 132* S. Ct. at 2477. Legislatures are the group generally accepted to do a better job with the task of addressing social policy. Caitlin E. Borgmann, *Rethinking Judicial Deference to Legislative Fact-Finding*, 84 IND. L.J. 1, 4 (2009).

301. *See* Brief of Amici Curiae State of Mich., Eighteen (18) Other States, & One (1) Territory for Respondents at 19, Miller v. Alabama, __ U.S. at __, 132 S. Ct. 2455 (2012) (Nos. 10-9646 & 10-9647), 2012 WL 60583, at *19 (stating retribution and deterrence are appropriate justifications the states use).

302. *See infra* Part III.B; Miller v. Alabama, 2012 WL 605831 (U.S.), 19–20 (U.S., 2012) (stating retribution is an appropriate justification).

303. Harmelin v. Michigan, 501 U.S. 957, 990 (1991). That social conditions could change rather quickly is evident from the fact that it was only in the mid-1970s that "states abandoned rehabilitation in favor of punishment." *See Finding Coherence*, *supra* note 15, at 912.

304. Brief of Amici Curiae State of Mich., Eighteen (18) Other States, & One (1) Territory for Respondents at 19, Miller v. Alabama, __ U.S. at __, 132 S. Ct. 2455 (2012) (Nos. 10-9646 & 10-9647), 2012 WL 60583, at *6

305. Miller v. Alabama, __ U.S. __, 132 S. Ct. 2455, 2471 (2012) ("29 jurisdictions (28 states and the Federal Government) make a life-without-parole term mandatory for some juveniles convicted of murder in adult court.").

306. *See* Harmelin v. Michigan, 501 U.S. 957, 990 (1991).

307. *See Miller, __* U.S. at__, *132* S. Ct. at 2482, 2483 (Alito, J., dissenting) (noting the decision upsets certain aspects of federalism).

"undermine[] the legitimacy of the criminal law."[308] State legislatures are the proper body to decide what to do in this grey area where the offenders very likely (1) had the self-control not to pull the proverbial trigger, and (2) have reached a point in their lives where they should no longer be able to use their age as an excuse for bad behavior.[309]

Granting leniency to those offenders who truly possess the "twice diminished capacity" of either (1) the appreciable youth stemming from being less than sixteen years old or (2) moderate youth, being over sixteen but under eighteen, coupled with "neither kill[ing] nor intend[ing] to kill the victim," will allay the fears of overreaching expressed in Justice Breyer's concurrence.[310] Case law supports the idea that even those aged sixteen and seventeen convicted by an aiding and abetting or accomplice theory, or via felony murder, are better candidates for leniency than those who pulled the proverbial trigger.[311] Doing so would exempt those young adults whose poor judgment reflected the fact that they succumbed to peer pressure, symptomatic of their years, and not that they had the worst kind of criminal intent.[312] As a result, this Comment urges the Court to grant certiorari on a *Miller*-like case and limit its previous decision.

IV. CONCLUSION

Certainly, neuroscience as a whole is not all bad and should not be completely brushed aside. But some commentators think even "good" science should not play a pivotal role in the law until it has been proven reliable.[313] There is no perfect solution to the problem of how to balance the rehabilitation of juvenile offenders with the risk they pose to society after committing a heinous crime.[314] While society entrusts teens with responsibilities that have serious consequences, we do need to recognize that their development is not complete.[315] The line the Court draws should not be defined by trying to identify chronologically where a teen's judgment is almost completely solidified, but

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308. *Juvenile Criminal Responsibility*, *supra* note 10, at 385.

309. *Miller*, __ U.S. at __, 132 S. Ct. at 2468.

310. *Id.* at 2476 (Breyer, J., concurring) (stating "if the juvenile either kills or intends to kill the victim, he lacks 'twice diminished' responsibility,").

311. *See, e.g.. id.* at 2477 (Roberts, C.J., concurring). ("At base, the theory of transferring a defendant's intent is premised on the idea that one engaged in a dangerous felony should understand the risk that the victim of the felony could be killed, even by a confederate . . . Yet the ability to consider the full consequences of a course of action and to adjust one's conduct accordingly is precisely what we know juveniles lack capacity to do effectively." "[T[his Court has made clear that this artificially constructed kind of intent does not count as intent for purposes of the Eighth Amendment.").

312. *See* Abigail A. Baird et al., *Juvenile Neurolaw: When It's Good It Is Very Good Indeed, and When It's Bad It's Horrid*, 15 J. HEALTH CARE L. & POL'Y 15, 24 (2012) (discussing common juvenile behavior).

313. Schauer, *supra* note 1, at 1191.

314. *Miller v. Alabama*, __ U.S. __, 132 S. Ct. 2455, 2477 (2012).

315. *See supra* Part III.C.

should reflect the point at which societal consensus dictates these offenders possess the minimum competency to be held fully accountable.[316]

By redrawing the "*Miller* line" at sixteen, not eighteen, the Court would acknowledge both the developmental differences between juveniles and adults[317] and society's expectations that anyone who takes part in crimes that could lead to someone's death should face adult consequences.[318] Justice Steven's concurrence in *Graham* noted that, "Society changes. Knowledge accumulates. We learn, sometimes, from our mistakes."[319] In light of the knowledge that has accumulated regarding the shaky scientific foundation *Miller* based it's holding on and the troubles faced by the lower courts, it is time to revert back to the long-respected tradition of deference to the legislature.

316. *See supra* Part III.C.

317. *See supra* Part III.C.

318. *See supra* Part III. A.

319. Graham v. Florida, 560 U.S. 48, 85 (2010) (Stevens, J., concurring).