

Echoes of Our Past: Examining the Effects of Childhood Trauma and Proposing a New Constitutional Bar to Capital Punishment

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I. INTRODUCTION

What makes a person who they are? Does one’s nature (i.e., genes) or one’s environment determine who that person will become? In reality, both one’s nature and environment play vital roles in an individual’s personal development.¹ Each factor plays off the other, contributing to an individual’s personal development.² Arguably, the most pivotal time for personal development is childhood because key neurological functions and adaptive social behaviors begin to develop.³ Accordingly, the environmental factors that surround an individual during

1. See Evan Nesterak, *The End of Nature Versus Nurture*, BEHAV. SCIENTIST (July 10, 2015), <http://behavioralscientist.org/the-end-of-nature-versus-nurture/>. The notion that either one’s nature or one’s nurture (i.e., environment) solely determines who an individual will become conflicts with current scientific understanding. See David Rettew, *Nature Versus Nurture: Where We Are in 2017*, PSYCHOLOGY TODAY (Oct. 6, 2017), <https://www.psychologytoday.com/us/blog/abcs-child-psychiatry/201710/nature-versus-nurture-where-we-are-in-2017>. Instead, as science shows, these two factors are inextricably interwoven, both contributing to the other. *Id.* One’s nature can be exacerbated by one’s environment. *Id.*

2. See *Gene-Environment Interaction*, CTR. ON DEVELOPING CHILD, HARV. U., <https://developingchild.harvard.edu/science/deep-dives/gene-environment-interaction/> (last visited Oct. 18, 2019).

3. See Jack P. Shonkoff, *A Promising Opportunity for Developmental and Behavioral Pediatrics at the Interface of Neuroscience, Psychology, and Social Policy: Remarks on Receiving the 2005 C. Anderson Aldrich Award*, 118 PEDIATRICS 2187, 2188 (2006).

childhood can either benefit or inhibit an individual's personal development.⁴

One environmental factor that consistently plays a vital, although pernicious, role in an individual's development is childhood trauma.⁵ Research suggests that childhood trauma has a deleterious effect on personal development, and the effects of these traumas can

4. For example, during infancy, the infant's relationship with his or her primary caregiver plays a vital role in helping the infant acquire skills to regulate his or her emotions. See Jean François Bureau et al., *Attachment Dysregulation as Hidden Trauma in Infancy: Early Stress, Maternal Buffering and Psychiatric Morbidity in Young Adulthood*, in *THE IMPACT OF EARLY LIFE TRAUMA ON HEALTH AND DISEASE: THE HIDDEN EPIDEMIC* 48, 50–51 (2010) (Ruth A. Lanius et al. eds., 2010). The presence or lack of a proper relationship with the infant's primary caregiver contributes to the infant's learning of how to regulate varying emotional responses to stressors. See *id.* In addition, repeated exposure to stressors throughout childhood can inhibit development of key brain structures like the pre-frontal cortex. See Bessel A. van der Kolk, *The Neurobiology of Childhood Trauma and Abuse*, 12 *CHILD & ADOLESCENT PSYCHIATRIC CLINICS N. AM.* 293, 304–06 (2003).

Outside of these "relational traumas," other environmental factors can play a major role in the child's development. For example, growing up in poverty has been shown to affect different developmental processes within a child's brain. Poverty can inhibit the development of important neurological skills, like self-regulation of one's emotion. See Esther E. Palacios-Barrios & Jamie L. Hanson, *Poverty and Self-Regulation: Connecting Psychosocial Processes, Neurobiology, and the Risk for Psychopathology*, 90 *COMPREHENSIVE PSYCHIATRY* 52, 58 (2019). Further, growing up in impoverished areas negatively affects certain neurological pathways important for academic achievement like critical thinking and educational functioning (i.e., the ability to give sustained attention to a matter). See Nicole L. Hair et al., *Association of Child Poverty, Brain Development, and Academic Achievement*, 169 *JAMA PEDIATRICS* 822, 828 (2015).

5. See Vincent J. Felitti et al., *Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study*, 14 *AM. J. PREVENTATIVE MED.* 245, 255–56 (1998). The pernicious harm caused by childhood trauma runs the gamut on the spheres of development it affects and on how such harm manifests physically. See *Effects*, NAT'L CHILD TRAUMATIC STRESS NETWORK, <https://www.nctsn.org/what-is-child-trauma/trauma-types/complex-trauma/effects> (last visited Oct. 18, 2019). Childhood trauma can affect a child's neurological, emotional, and psychological development. *Id.* Moreover, these harms can manifest in a variety of ways ranging from relational and behavioral issues to cognitive issues. *Id.*

endure beyond childhood, altering an individual's adult actions.⁶ Because the harms stemming from childhood trauma can last a lifetime, recognition of these traumatic experiences becomes essential not only for rehabilitative purposes but also for the valuable insight these traumatic experiences can provide in understanding an individual's future actions. Legally, this insight can have significant ramifications in determining an individual's criminal culpability.

Criminal culpability directs the American justice system to punish only those who have broken the law with the requisite intent. Culpability not only answers the pivotal question of whether a crime has actually been committed but also determines what punishment the individual must bear. According to the proportionality doctrine, the punishment the individual receives must fit the crime.⁷ For the most heinous crimes, criminal law reserves its harshest punishment, the death penalty, for those individuals with the highest level of criminal culpability.⁸ Given its finality, capital punishment occupies a special place within the American criminal justice system.⁹

This Note argues that, in the context of capital punishment, the results of childhood trauma can lessen an individual's culpability as an adult. As research suggests, the harms stemming from repeated trau-

6. See *infra* Part III (reviewing how the architecture of the brain itself changes in response to repeated childhood trauma). Additionally, childhood trauma has a correlative relationship with multiple negative behaviors and life outcomes as an adult. See Felitti et al., *supra* note 5, at 255–56.

7. See *Weems v. United States*, 217 U.S. 349, 367 (1910) (“[I]t is a precept of justice that punishment for crime should be graduated and proportioned to offense.”); see also *Graham v. Florida*, 560 U.S. 48, 59 (2010) (stating that proportionality is central to the Eighth Amendment protection against cruel and unusual punishment).

8. See *Atkins v. Virginia*, 536 U.S. 304, 319 (2002) (“[O]nly the most deserving of execution are put to death.”).

9. See *Thompson v. Oklahoma*, 487 U.S. 848, 856 (1988) (O'Connor, J., concurring) (“Under the Eighth Amendment, the death penalty has been treated differently from all other punishments.”); *California v. Ramos*, 463 U.S. 992, 998–99 (1983) (“The Court . . . has recognized that the qualitative difference of death from all other punishments requires a correspondingly greater degree of scrutiny of the capital sentencing determination.”).

mas can compound and continue to persist even after a child's eighteenth birthday.¹⁰ Meaning, the harm posed by childhood trauma can alter an individual's adult actions, potentially mitigating one's criminal culpability as an adult. Without the requisite level of culpability, capital punishment should be barred for victims of childhood trauma by the creation of a new categorical bar similar to the ones recognized in cases dealing with intellectually disabled individuals or juveniles.¹¹

Part II will review how courts have treated the evidence of childhood trauma in the capital punishment context and examine the parallels between the role of childhood trauma on criminal culpability with already existing constitutional bars. Part III examines how childhood trauma affects an individual's development and how these effects can justify a new categorical bar to capital punishment. Part IV develops a defense based on a childhood environment with trauma. In concluding, Part IV suggests a standard that courts could employ to determine when the new proposed bar becomes activated. The conclusion illustrates through a hypothetical when this proposed bar will arise.

II. CASE LAW: ANALYZING CURRENT CATEGORICAL BARS AGAINST CAPITAL PUNISHMENT

[E]vidence about the defendant's background and character is relevant because of the belief, long held by this society, that defendants who commit criminal acts that are attributable to a disadvantaged background, or to

10. See RICHARD G. DUDLEY, JR., U.S. DEP'T OF JUSTICE, NAT'L INST. OF JUSTICE, CHILDHOOD TRAUMA AND ITS EFFECTS: IMPLICATIONS FOR POLICE 5 (2015), <https://www.ncjrs.gov/pdffiles1/nij/248686.pdf> (noting how trauma influences the development of key areas of the brain related to stress management). In addition, long lasting psychological harms can be seen arising from trauma during childhood through issues with anxiety and hypervigilance associated with post-traumatic stress. *Id.* at 6. Emotional harm can manifest as an inability to control anger, emotional instability, or impulsivity. *Id.* at 7. To further strengthen the notion that the harmful effects of childhood trauma can last a lifetime, see generally Felitti et al., *supra* note 5.

11. See *Roper v. Simmons*, 543 U.S. 551, 578 (2005) (holding that Eighth Amendment protection against cruel and unusual punishment is violated when sentencing juvenile offenders to death); *Atkins*, 536 U.S. at 321 (holding that executing individuals with intellectual disabilities violates the Eighth Amendment).

*emotional and mental problems, may be less culpable than defendants who have no such excuse.*¹²

The Eighth Amendment provides that “[e]xcessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.”¹³ The text of the Eighth Amendment protects against “cruel and unusual punishments,” but the amendment leaves undefined what punishments fall within the umbrella of its protection.¹⁴ While the protection offered by the Eighth Amendment remains the same, “its applicability must change as the basic mores of society change.”¹⁵ Because the Eighth Amendment requires a court to evaluate what might constitute cruel and unusual punishment, any analysis by the court will naturally require moral judgments concerning the nature of the punishment proffered.¹⁶ Caselaw informs what courts should look at in making that moral judgment.

Rather than leaving that moral judgment to the personal whims of each individual judge, the Supreme Court has stated that a reviewing court’s analysis should be guided by society’s “evolving standards of decency.”¹⁷ Courts make this determination by looking to state legislatures that—in theory—best represent the popular will and “evolving standards of decency.”¹⁸ Informed by Society’s consensus, a court then

12. *California v. Brown*, 479 U.S. 544, 545 (1987) (O’Connor, J., concurring).

13. U.S. CONST. amend. VIII.

14. *See id.*

15. *Kennedy v. Louisiana*, 554 U.S. 407, 419 (2008) (quoting *Furman v. Georgia*, 408 U.S. 238, 382 (1972) (Burger, C.J., dissenting)).

16. *See id.* (“[Any] standard of extreme cruelty is not merely descriptive, but necessarily embodies a moral judgment.” (quoting *Furman v. Georgia*, 408 U.S. 238, 382 (1972) (Burger, C.J., dissenting))).

17. *Trop v. Dulles*, 356 U.S. 86, 101 (1958).

18. *Id.* What exactly constitutes a national consensus is itself open to interpretation. Compare *Roper v. Simmons*, 543 U.S. 551, 565 (2005) (finding that since the Court last addressed the issue of juvenile capital punishment, only five states had moved to prohibit the practice), with *Atkins v. Virginia*, 536 U.S. 304, 314–15 (2002) (finding that fifteen states had prohibited the practice of executing intellectually disabled defendants since the Court last addressed it). In both *Roper* and *Atkins*, the Court held that a national consensus existed against authorizing the use of capital punishment in each case, respectively. *See Roper*, 543 U.S. at 568; *Atkins*, 536 U.S. at 317. To explain the difference between the two cases, the *Roper* Court pointed to the fact that the prohibition on the execution of youths had already achieved a wider level of

renders its own judgment by weighing the severity of the punishment with the crime committed.¹⁹ If a court determines that the proposed punishment does not fit the severity of the crime, then the protection afforded by the Eighth Amendment becomes activated.²⁰ Using this analysis, courts have held that the Eighth Amendment protection currently bars the execution of juvenile offenders, those deemed insane at the time of execution, and intellectually disabled individuals.²¹ For

recognition in the states before the Court had previously addressed the issue in *Stanford v. Kentucky*, 492 U.S. 361 (1989). *Roper*, 543 U.S. at 566–67. Because twelve states already recognized the prohibition by the time of *Stanford*, the slower growth since last addressing the issue in *Stanford* was natural. *See id.* at 565–66. In *Atkins*, however, only two states recognized a ban against executing those with intellectual disabilities when the Court previously addressed the issue in *Penry v. Lynaugh*, 492 U.S. 302 (1989), so a larger increase in the number following *Penry* was also natural. *Roper*, 543 U.S. at 565–66.

19. *See Roper*, 543 U.S. at 564; *see also* *Coker v. Georgia*, 433 U.S. 584, 597 (1977) (“[T]he attitude of state legislatures and sentencing juries do not wholly determine this controversy, for the Constitution contemplates that in the end our own judgment will be brought to bear on the question of the acceptability of the death penalty under the Eighth Amendment.”).

20. *See Roper*, 543 U.S. at 575. The notion that the punishment must fit the crime has been an integral part of several Court holdings that apply the Eighth Amendment to prohibit certain punishments. *See* *Miller v. Alabama*, 567 U.S. 460, 479 (2012) (holding that a mandatory life sentence without possibility of parole for a juvenile convicted of murder violates the Eighth Amendment’s proportionality component); *Graham v. Florida*, 560 U.S. 48, 74 (2010) (reversing and finding a life sentence without possibility of parole was a disproportionate sentence for a juvenile who did not commit homicide); *Coker*, 433 U.S. at 600 (finding the death sentence disproportionate for a defendant convicted of rape where the victim did not die).

21. *See Roper*, 543 U.S. at 551 (holding sentencing juveniles to death violates the Eighth Amendment protection against cruel and unusual punishment); *Atkins*, 536 U.S. at 321 (holding that executing individuals with intellectual disabilities violates Eighth Amendment); *Ford v. Wainwright*, 477 U.S. 399, 409–10 (1986) (holding the execution of a defendant suffering from insanity violated the Eighth Amendment). Although the *Atkins* court explicitly used the term “mental retardation” when issuing its decision, courts now generally use the language of “intellectual disability” when referring to individuals with mental retardation. *See* *Hall v. Florida*, 572 U.S. 701, 707 (2014) (citing *Atkins*, 536 U.S. at 321) (“[T]his Court ruled that the Eighth Amendment prohibited the execution of persons with intellectual disability.”); *Matter of Davis*, 395 P.3d 998, 1002 (Wash. 2017) (generally referring to the defendant’s claim as one concerning intellectual disability); *Oats v. Jones*, 220 So. 3d 1127, 1129 (Fla. 2017) (using intellectual disability language).

these protected groups, belonging to these groups alone provides a sufficient basis to proscribe the use of capital punishment entirely.²²

The Supreme Court has only recently recognized these categorical bars to capital punishment.²³ Prior to the Supreme Court establishing these prohibitions on the use of capital punishment, these categorical bars were viewed only as mitigating factors that a jury could weigh

22. For those seeking to avoid execution by arguing that they fall within the protected groups of those with intellectual disabilities or those suffering from insanity, determination of that question has been left to the states. See *Atkins*, 536 U.S. at 317; *Wainwright*, 477 U.S. at 416–17 (“[W]e leave to the State[s] the task of developing appropriate ways to enforce the constitutional restriction upon its execution of sentences.”).

Determining who might fall under these protections has been a quagmire for the states. Recently, in *Madison v. Alabama*, the Supreme Court tentatively expanded the protection under *Ford v. Wainwright* to include a defendant suffering from severe dementia. See *Madison v. Alabama*, 139 S. Ct. 718, 722 (2019). The protection under *Wainwright* applied to defendants suffering from delusions or mental health problems. *Id.* Here, however, the defendant did not suffer from psychotic delusions but instead suffered from a series of strokes, followed with severe vascular dementia, greatly inhibiting his cognitive ability. *Id.* at 723. The Court had no issues extending the protection of *Wainwright* to a defendant suffering from a physical condition instead of a mental health condition, if the defendant lacked a “rational understanding” of why he was being executed. *Id.* at 732 (Alito, J., dissenting). The Court ultimately disposed of the case by remanding it to the state of Alabama to determine this pivotal question related to the defendant’s ability to rationally understand the reason for his punishment. *Id.* at 731.

23. In the context of juvenile offenders, the Court first addressed the issue in 1988. *Thompson v. Oklahoma* 487 U.S. 815, 836–37 (1988) (holding that the Eighth Amendment prohibited the execution for defendants under sixteen). The following year, the Court addressed the issue for offenders between the ages of sixteen and eighteen. *Stanford v. Kentucky*, 492 U.S. 361, 380 (1989) (upholding the constitutionality of sentencing those between the ages of sixteen and eighteen to death). It was not until 2005, in *Roper v. Simmons*, that the Court definitively barred the use of capital punishment for any defendant under the age of eighteen. 543 U.S. at 578.

For those with intellectual disabilities, the Court addressed the issue in 1989, upholding the constitutionality of executing those with intellectual disabilities. *Perry v. Lynaugh*, 492 U.S. 302, 340 (1989). *Perry*’s precedent stood for nearly fifteen years, until the Court overruled it in *Atkins*, holding that the Eighth Amendment prohibited executing those with intellectual disabilities. *Atkins*, 536 U.S. at 321.

in determining whether to levy capital punishment.²⁴ The evolution of these mitigating factors to their current status as categorical bars provides a roadmap for the recognition of childhood trauma as a new categorical bar.²⁵

A. Evolution of Youth Status: Age Is More Than Just a Number

Indelibly woven into the fabric of the American criminal justice system is the notion that juveniles are not as responsible for their actions as adults.²⁶ Reflected throughout society, laws embody this notion by prohibiting certain activities based on the age of the individual.²⁷ Given the prevalence of lessened responsibility for juveniles in our justice system, it is surprising that the use of capital punishment for any defendant under the age of eighteen was not barred until 2005 in *Roper v. Simmons*.²⁸ The Supreme Court's analysis in the cases leading up to *Roper* focused on a child's ill-formed decision-making abilities

24. See *Roper*, 543 U.S. at 572–73 (rejecting the argument that youth should only be a mitigating factor); *Atkins*, 536 U.S. at 320 (mentioning reliance on “mental retardation” as a mitigating factor).

25. It is important to note that this line of cases, questioning the constitutionality of levying capital punishment against certain groups of defendants, all arose after the Supreme Court reinstated the use of capital punishment in *Gregg v. Georgia*, 428 U.S. 153, 206–07 (1976). Prior to *Gregg*, the Court briefly outlawed the use of capital punishment regardless of the offense under the Eighth Amendment protection to be free from cruel and unusual punishment. *Furman v. Georgia*, 408 U.S. 238, 240 (1972). Following the reinstatement of the death penalty, the Court began to recognize constitutional bars for the use of execution against certain groups. See *infra* Part II(a) & (b).

26. See *Thompson*, 487 U.S. at 823.

27. For example, those under eighteen cannot vote in elections. See U.S. CONST. amend. XXVI, § 1 (“The right of citizens of the United States, who are eighteen years of age or older, to vote shall not be denied or abridged by the United States or by any State on account of age.”). Those under eighteen cannot join the military absent parental consent. See *Join the Military*, USA.GOV, <https://www.usa.gov/join-military> (last visited Sept. 11, 2019). Under federal law, those under eighteen cannot purchase cigarettes. See 21 U.S.C. § 387f(d)(3)(A)(ii) (2018).

28. See *Roper*, 543 U.S. at 578–79.

and their sensitivity to external influences.²⁹ The Court's repeated examination of these characteristics led it to the conclusion that capital punishment cannot be levied against individuals under the age of eighteen.

In *Eddings v. Oklahoma*, the Court emphasized the importance of a defendant's youth-status as a mitigating factor within the capital punishment context.³⁰ The Court explained that an individual's age represents more than just a "chronological fact."³¹ Childhood embodies a unique time period of one's life that is filled with uncertainty, personal development, and a greater susceptibility to be influenced by one's external environment. The Court elaborated that recognition of this unique time by the courts can be demonstrated in the unequal and different treatment children receive versus adults.³² This historical recognition stems from the practical reality that children lack maturity, experience, and reasoned judgment.³³ So, when discussing youth as a mitigating factor, the jury must also consider these other characteristics that define youth.³⁴

In *Thompson v. Oklahoma*, the Court began to shift away from treating youth as a mitigating factor to treating it as a categorical bar when it held that executing defendants under the age of sixteen violated the Eighth Amendment.³⁵ The *Thompson* Court reiterated that juveniles suffer from a lack of experience and a level of emotional maturity which renders them less culpable than adults.³⁶ Adding a new level of analysis, the Court examined the twin aims of capital punishment, retribution and deterrence, for defendants under sixteen.³⁷ In this context, the age of the defendant weakens the underlying rationales justifying

29. See generally *id.*; *Stanford v. Kentucky*, 492 U.S. 361 (1989); *Thompson*, 487 U.S. at 815 (1988); *Eddings v. Oklahoma*, 455 U.S. 104 (1982).

30. 455 U.S. 104, 105 (1982).

31. *Id.* at 115.

32. *Id.* at 115–16.

33. *Id.*

34. See *id.*

35. 487 U.S. 815, 838 (1988).

36. *Id.* at 835 (“[T]he Court has already endorsed the proposition that less culpability should attach to a crime committed by a juvenile than to a comparable crime committed by an adult.”).

37. *Id.* at 836–37.

capital punishment.³⁸ The Court reasoned that if juveniles suffer from poor judgment and lack experienced decision-making, then the deterrent force of capital punishment weakens because juveniles will not appropriately weigh the consequences of their actions.³⁹ Further, society's belief, coupled with the historical belief that juveniles are less culpable for their actions than adults, weakens the retribution rationale.⁴⁰ In sum, because those under sixteen lack decision-making skills and executing them would not further any legitimate goal of criminal justice, the Court prohibited this practice under the Eighth Amendment.⁴¹

In *Roper v. Simmons*, the Court definitively laid to rest the issue of executing individuals under the age of eighteen by barring the punishment outright.⁴² Facing a growing trend of State's prohibiting the practice,⁴³ the Court again returned to its analysis of youth as a factor

38. *Id.*

39. *Id.* at 837. The Court further justified this weakening in the deterrent value of capital punishment by analyzing the statistics surrounding capital punishment for defendants under the age of sixteen. *Id.* The Court, looking at the Department of Justice Statistics, noted that "98% of arrests for willful homicide" were defendants over the age of sixteen. *Id.* Excluding what constituted about 2% of the overall homicide arrests for defendants under the age of sixteen by issuing a categorical bar did not significantly weaken the deterrent value of capital punishment. *See id.*

40. *Id.* at 835–36.

41. *Id.* at 838. While the *Thompson* ruling provided defendants under the age of sixteen a safe harbor from society's harshest punishment, the constitutionality of capital punishment for defendants between the ages of sixteen and eighteen remained an open question until *Stanford v. Kentucky*, 492 U.S. 361 (1989). In *Stanford*, the Court upheld the constitutionality of executing defendants between the ages of sixteen and eighteen. 492 U.S. 361, 380 (1989). The Court's decision in *Stanford* neither discounted previous approaches by the Court in this context nor devalued youth as a factor in lessening culpability. *Id.* at 377. Instead, the Court held that Society's sense of decency did not disapprove of such a punishment, evidenced by the fact that the majority of states allowed the punishment. *Id.* It is important again to note that part of the Court's analysis under Eighth Amendment jurisprudence will require a court to look at Society's evolving standard of decency, best evidenced by state legislatures. Because most states did not prohibit this punishment, the Court would not act as the moral arbiter and rule against it. *Id.* at 378. The precedent of *Stanford* and *Thompson* defined the state of things regarding capital punishment for juveniles until the Court redressed the issue in *Roper v. Simmons*, 543 U.S. 551 (2005).

42. 543 U.S. at 568.

43. *Id.* at 567.

in lessening criminal culpability, this time utilizing it to justify a new constitutional bar.⁴⁴ The Court identified three general differences between adults and juveniles that lessens the juvenile's culpability.⁴⁵ The first significant difference between juveniles and adults identified by the Court was the lack of maturity and sensible decision-making capabilities.⁴⁶ The Court relied on then-current scientific and sociological studies to support the conclusion that "[a] lack of maturity and an underdeveloped sense of responsibility are found in youth more often than in adults and are more understandable among the young."⁴⁷ The second difference arose from scientific studies that tended to show that juveniles "are more vulnerable or susceptible to negative influences and outside pressures."⁴⁸ This vulnerability, in part, stems from the child's inability to escape their negative environment, subjecting them to prolonged experiences with trauma.⁴⁹ The final difference the Court examined was that a child's personal identity is less developed and more transitory than that of an adult.⁵⁰ For the Court, these three differences "render[ed] suspect any conclusion that a juvenile falls among the worst offenders."⁵¹ In light of these major differences between adults and juveniles, the Court found that the deterrent and retributive purpose of capital punishment could not justify such a punishment.⁵²

In reviewing the cases preceding the *Roper* decision, the Supreme Court consistently returned to two themes in addressing the issue of levying capital punishment on juveniles. First, juveniles lack experience in decision-making, hindering their ability to assess the consequences of their actions.⁵³ Next, children are uniquely susceptible to

44. *See id.* at 568–69.

45. *See id.* at 568–71.

46. *Id.* at 569.

47. *Id.* at 569 (alternation in original) (quoting *Johnson v. Texas*, 509 U.S. 350, 367 (1993)).

48. *Id.* (citing *Eddings v. Oklahoma*, 455 U.S. 104, 115 (1982)).

49. *See id.*

50. *Id.* at 570.

51. *Id.*

52. *Id.* at 572.

53. *See Roper*, 543 U.S. at 569–72; *Thompson v. Oklahoma*, 487 U.S. 815, 835 (1988); *Eddings*, 455 U.S. at 115–16.

external influences within their environment.⁵⁴ These reoccurring themes that justified the Court's recognition of a constitutional bar are also present when examining the effects that childhood trauma can have on a person's development.⁵⁵

B. Evolving Treatment of a Defendant's Intellectual Disability

As defendants challenged the constitutionality of capital punishment against juveniles, defendants with intellectual disabilities were presenting analogous challenges.⁵⁶ Examining the evolution of the Court's attitude towards intellectual disability from mitigating factor to constitutional bar reiterates several important themes from above. In its analysis, the Court again focused on unique characteristics found in defendants with intellectual disabilities,⁵⁷ such as attributes that affect decision-making and the individual's susceptibility to external influence. The repeated focus by the Court on these characteristics foreshadows what characteristics the Court looks for in order to issue a new constitutional bar.

The first constitutional challenge the Court addressed related to executing intellectually disabled defendants occurred in *Penry v. Lynaugh*.⁵⁸ The *Penry* Court found no Eighth Amendment violation for executing those with an intellectual disability as long as the jury gave proper consideration to the disability.⁵⁹ In making its ruling, the

54. See *Roper*, 543 U.S. at 569; *Eddings*, 455 U.S. at 115–16.

55. See *infra* Part III.

56. In less than a year, the Court heard cases challenging the use of capital punishment for both juveniles under the age of sixteen and defendants with intellectual disabilities. See *Thompson*, 487 U.S. at 815 (holding it as a violation of the Eighth Amendment to execute juveniles under the age of sixteen); *Penry v. Lynaugh*, 492 U.S. 302, 334 (1989) (affirming the constitutionality of executing defendants with intellectual disabilities). This closeness and the similar arguments help support that the key themes arising out of these two separate contexts provide a formula to argue for another constitutional bar.

57. These characteristics had similar effects to the characteristics the Court examined when reviewing the use of capital punishment against juveniles. See *supra* Section II.A. Traits that influenced decision making and susceptibility to be influenced by outside pressure were again zeroed in on by the Court.

58. 492 U.S. at 302.

59. *Id.* at 340.

Court cited to a lack of national consensus related to the issue of executing defendants with intellectual disabilities.⁶⁰ Nonetheless, the Court explained the importance of properly considering a defendant's intellectual disability.⁶¹ While the lessened cognitive ability of these defendants combined with the lack of appreciation for the consequences of their actions could serve as a valuable mitigating factor, these qualities did not justify a new constitutional bar.⁶²

Thirteen years later, in *Atkins v. Virginia*, the Court overruled *Penry* and held that executing defendants with intellectual disabilities violated the Eighth Amendment.⁶³ By the time the Court revisited the issue, a national consensus had developed, strengthening the argument to prohibit such a punishment.⁶⁴ In addition to the national consensus, the Court supported its conclusion by recognizing the unique characteristics of intellectually disabled defendants.⁶⁵ The *Atkins* Court noted that these defendants had less personal culpability because of their impaired cognitive ability, their diminished ability to assess risk, and a

60. *Id.* at 334. At the time of the case, excluding the fourteen states that prohibited the use of capital punishment in all instances, only two states prohibited the execution of defendant's with intellectual disabilities. *Id.* Lacking a clear national consensus, the *Penry* Court refused to act as a moral arbiter. *Id.* at 340.

61. *Id.* at 337.

62. *Id.* at 337–40 (“But we cannot conclude today that the Eighth Amendment precludes the execution of any mentally retarded person of Penry’s ability convicted of a capital offense simply by virtue of his or her mental retardation alone.”). The Court’s hesitancy to issue a new constitutional bar arose for two reasons. First, the lack of national consensus discouraged the Court from issuing a definitive ruling on something society itself had not addressed. *Id.* at 335. Second, intellectual disability covers a whole range of lessened cognitive ability. *Id.* at 338. This variability in the level of impairment persuaded the Court to favor a more individualized approach instead of a blanket approach. *Id.* 338–39.

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

64. *Id.* at 314–15. Excluding the states that prohibited capital punishment in all instances, since the Court last addressed the issue, at least fifteen states had passed statutes to prohibit the punishment. *Id.* at 315. Noting not only the number of states moving to prohibit the punishment, the “consistency of the direction” over the short period of time since *Penry* helped to inform the Court that Society’s evolving standard of decency prohibited the punishment. *Id.* at 315–16. The ultimate issue was not with prohibiting the practice but in determining which defendants in fact were intellectually disabled to render capital punishment inapplicable. *Id.* at 317.

65. *Id.* at 318–21.

tendency for impulsive rather than premediated action.⁶⁶ Moreover, execution of these defendants did not further the stated aims of capital punishment.⁶⁷

In the progression of cases culminating in Eighth Amendment protections for intellectually disabled defendants, themes emerge similar to those that led to a constitutional bar for the capital punishment of youth defendants. The Court focused on characteristics that influenced decision-making,⁶⁸ the susceptibility of these defendants to influence from external sources,⁶⁹ and the effect these factors have on personal culpability. When these themes are present, capital punishment becomes inapplicable because it lacks a deterrent and retributive effect and, as was the case with youth and intellectual disability, comes with a national consensus against its use.

C. How Courts View Childhood Trauma in the Context of Capital Punishment

After extrapolating the key points of emphasis for the Court in the evolution of categorical bars for defendants with intellectual disabilities or youth status, reviewing courts' treatment of childhood trauma illustrates a similar lessening of culpability. Evidence of childhood trauma already possesses an inherent evidentiary value "because of the belief, long held by this society, that defendants who commit criminal acts that are attributable to a disadvantaged background, or to emotional and mental problems, may be less culpable than defendants who have no such excuse."⁷⁰ Moreover, the Supreme Court has noted in its analysis of youth status the effects childhood trauma can have on criminal culpability.⁷¹

66. *Id.* at 318.

67. *Id.* at 318–20.

68. *See id.* at 318 ("Because of their impairments, however, by definition they have diminished capacities to understand and process information, to communicate, to abstract from mistakes and learn from experience, to engage in logical reasoning, to control impulses, and to understand the reactions of others.").

69. *Id.* at 318 ("[I]n group settings they are followers rather than leaders.").

70. *California v. Brown*, 479 U.S. 538, 545 (1987) (O'Connor, J., concurring).

71. *See Eddings v. Oklahoma*, 455 U.S. 104, 116 (1982). The Court noted in *Eddings* that the defendant was not "a normal 16-year-old." *Id.* The defendant's en-

The Court, on numerous occasions, has reiterated the value of evidence of a defendant's childhood trauma in a line of cases concerning ineffective counsel. Even under the deferential *Strickland* standard,⁷² the Court has consistently shown no hesitancy in finding counsel ineffective when it failed to present evidence of a defendant's childhood trauma during sentencing, citing the potential mitigating value of such evidence.⁷³ The Court in this line of cases has cemented the value evidence of trauma has in mitigating culpability.

vironment growing up subjected him to neglect, violent abuse, and hindered his emotional development. *Id.* However, although *Eddings* concerned a juvenile defendant, the Court still noted that "the chronological age of a minor is itself a relevant mitigating factor of great weight, so must the background and mental and emotional development of a youthful defendant be duly considered in sentencing." *Id.*; *see also* *Roper v. Simmons*, 543 U.S. 551, 569 (2005) (noting that during the time as a youth, outside forces are prone to have a more pronounced effect on juveniles given that they are still developing their identity and lack the ability to control their environment).

72. For a claim of ineffective counsel to succeed, the defendant must prove two elements. *See Strickland v. Washington*, 466 U.S. 668, 687 (1984). First, the convicted defendant must show that his counsel provided such inept legal care that it violated his Sixth Amendment guarantee for counsel. *Id.* The courts deploy a "reasonably effective assistance" standard to determine if counsel's performance constituted such a violation. *Id.* at 687–88. Courts will examine on a case by case basis the reasonableness of counsel's performance and use contemporary legal standards, practices, and customs to make a determination. *Id.* This inquiry though, must show deference to counsel, because the "distorting effects of hindsight," *id.* at 689, would tempt "a court, examining counsel's defense after it has proved unsuccessful, to conclude that a particular act or omission of counsel was unreasonable." *Id.* at 689 (citing *Engle v. Isaac*, 456 U.S. 107, 13334 (1982)).

If a court determines that counsel's performance constituted ineffective counsel, the defendant must still show that counsel's ineffective performance prejudiced his defense. *Id.* at 687. For a defendant to succeed under this element, he must show that "there is a reasonable probability that, but for counsel's unprofessional errors, the result of the proceeding would have been different." *Id.* at 694. This level of probability is met when there is a basis to sufficiently "undermine confidence in the outcome." *Id.*

73. In *Wiggins v. Smith*, the Court held that counsel's decision not to investigate the defendant's childhood constituted ineffective counsel. 539 U.S. 510, 519 (2003). Had counsel investigated, he would have discovered that the defendant suffered from numerous traumas as a child. *Id.* at 525. The investigation would have shown counsel that defendant witnessed his mother's alcoholism, suffered from sexual abuse, bounced around foster homes, suffered from malnutrition, and displayed symp-

III. UNDERSTANDING THE PERNICIOUS HARM OF CHILDHOOD TRAUMA

*[I]t is not so much the kind of person a man is as the kind of situation in which he finds himself that determines how he will act.*⁷⁴

The U.S. Supreme Court repeatedly returned to characteristics affecting decision-making and susceptibility to outside influences when determining the constitutionality of executing juveniles and defendants with intellectual disabilities.⁷⁵ Once understood, childhood trauma may have similar effects on decision-making and sensitivity to external influences. The science surrounding childhood trauma and its effect on an individual's development supports the creation of a new constitutional bar.

Often, the obvious physical reminders of childhood trauma—broken bones, scars, and bruising—understandably receive a bulk of

toms of emotional issues at an early age. *Id.* These omissions prejudiced the defendant and if introduced to the jury, would have influenced their decision in handing down the death penalty. *Id.* at 538.

In *Williams v. Taylor*, the Court again addressed another ineffective counsel claim and found that counsel's erroneous decision to not offer evidence of defendant's "nightmarish childhood" consisting of his parents being criminally charged with neglect, being physically abused and beaten by his father, and had spent time in the foster care system before returning back to his parents constituted ineffective counsel. 529 U.S. 362, 395 (2000). Additionally, counsel failed to offer evidence related to the defendant's low IQ, which also constituted ineffective assistance of counsel. *Id.* at 396.

In *Rompilla v. Beard*, the Court found counsel ineffective when defendant's counsel failed to discover or present evidence related to the defendant's traumatic childhood. 545 U.S. 374, 391–92 (2005). Had counsel done so, the evidence presented would have shown that the defendant's mother drank excessively while he was in utero and that defendant witnessed violent fights between his parents, suffered from physical abuse by his father, and at times was locked in cage-like quarters. *Id.* at 392. This evidence, the Court noted, could have influenced the jury to decide against the sentence of capital punishment. *Id.* at 393.

Lower courts have also recognized the role childhood trauma serves as mitigating evidence. *See, e.g., Doe v. Ayers*, 782 F.3d 425 (9th Cir. 2015); *Foust v. Houk*, 655 F.3d 524 (6th Cir. 2011); *Hall v. McPherson*, 663 S.E.2d 659 (Ga. 2008).

74. STANLEY MILGRAM, OBEDIENCE TO AUTHORITY 205 (1969).

75. *See supra* Sections II.A, II.B.

the attention. Yet, the subtle but pervasive problems caused by childhood trauma arise not only from these physical scars but also the hidden harm to the individual's personal development.⁷⁶ The reality is that these physical reminders heal. Yet, the emotional, psychological, and developmental cuts and bruises that originate from these traumatic moments can remain unseen and may last a lifetime.⁷⁷ A traumatic experience during childhood, similar to a stone dropping into a still pond, can cause an immediate disruption of the child's environment. Moreover, just like how the ripples from a single stone-drop can disrupt the entire pond, a traumatic experience in childhood has the potential to negatively influence the child's development and actions beyond that moment. Understanding these ripple effects stemming from childhood trauma helps to understand how childhood trauma influences an individual's action as an adult.

Given the broad swathe of experiences such a definition can imply, trauma, in this Note, will specifically refer to traumatic experiences defined by the Center for Disease Control known as adverse childhood experiences ("ACEs").⁷⁸ These traumatic experience categories were

76. See generally Felitti et al., *supra* note 5 (noting the relationship between childhood trauma with emotional, psychological, and cognitive issues as adults).

77. See *id.* at 255–56.

78. These ACE categories stem from a groundbreaking study conducted by the Kaiser Permanente Institute in 1998. See *id.* at 245–58; see also *Violence Prevention*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/violenceprevention/acestudy/about.html> (last visited Sept. 23, 2019) (defining ACEs). The issue surrounding the ambiguity of terminology related to trauma requires that a definitional framework be in place before moving into further discussion. The word "trauma" often serves as an umbrella term to encompass a plethora of negative experiences. See David Dante Troutt, *Trapped in Tragedies: Childhood Trauma, Spatial Inequality, and Law*, 101 MARQ. L. REV. 601, 609 (2018). By cabining "trauma" into a narrower definition, this Note hopes to facilitate an easier and more beneficial discussion regarding trauma.

This definition of "trauma," provided by the ACEs categories, has been chosen for three reasons. First, it serves the practical purpose of narrowing the discussion to childhood trauma and better fits within the overall purpose of this Note. Second, these categories offer clear lines of demarcation that would better equip a court to examine whether trauma was present in a defendant's childhood. Third, these ACEs categories are universally recognized within the scientific community, and numerous scientific studies have been conducted using these categories. See *infra* notes 117–20 and accompanying text.

identified in the seminal study conducted by the Kaiser Permanente Institute in 1998.⁷⁹ The Kaiser Permanente Study identified three major categories to describe traumatic experiences a child might undergo: (1) childhood abuse, like physical and emotional abuse; (2) challenges within the home such as living in a single parent household; and (3) neglect, whether it be emotional or physical.⁸⁰ These categories ground this analysis by providing a framework for identifying tangible harm caused by childhood trauma.⁸¹

Trauma's pervasive effects can influence key aspects of an individual's development.⁸² The manner in which trauma's deleterious effects take form, in part, depends on the stage of life the child is in. Meaning, the effects of trauma will naturally manifest differently in infants than in older children given the practical differences between the two developmental stages.⁸³ Nonetheless, research suggests that the harmful effects of trauma can begin to take root in infancy.⁸⁴

79. See Felitti et al., *supra* note 5, at 248 & tbl.1.

80. See *Violence Prevention*, *supra* note 78. The three general categories center around experiences with abuse, household challenges, and neglect. *Id.* Further, each general category has its own subcategories. For abuse, the subcategories consist of physical abuse, emotional abuse, and sexual abuse. *Id.* For household challenges, experiences with seeing a parent being treated violently, witnessing substance abuse, witnessing a family member suffer from a mental illness, witnessing a family member go to jail, or witnessing a parental divorce make up the subcategories of experiences. *Id.* For the final general category, neglect, emotional and physical neglect fill out its sub-categories. *Id.*

81. See Marilyn Metzler et al., *Adverse Childhood Experiences and Life Opportunities: Shifting the Narrative*, 72 CHILD. & YOUTH SERVS. REV. 141, 141–42 (2017) (explaining the robust and growing body of research using ACEs and linking them to multiple negative outcomes in life).

82. The pernicious effects of trauma can begin to rewire neural pathways to support maladaptive behaviors. See van der Kolk, *supra* note 4, at 295. Trauma impedes emotional development and inhibits the ability to regulate one's own emotions. *Id.* at 295–96. Obvious physical harm can arise from deliberate malnourishment or repeated exposure to physical abuse. Finally, lasting psychological harm occurs to the developing individual. *Id.* at 297.

83. See Bureau, *supra* note 4, at 48.

84. See Nat'l Sci. Council on the Developing Child, *Excessive Stress Disrupts the Architecture of the Developing Brain* 5 (Ctr. on the Developing Child Harvard Univ., Working Paper No. 3, 2014), https://developingchild.harvard.edu/wp-content/uploads/2005/05/Stress_Disrupts_Architecture_Developing_Brain-1.pdf (“Science does not support the claim that infants and young children are too young to be

A. Infancy: A Pivotal Time of Development

The foundation for individual development begins as behavioral and neurological pathways form during infancy.⁸⁵ During this foundational period, rapid growth and development occurs in the infant's neurological, emotional, and physical systems.⁸⁶ Imagine a farmer laying the soil for his next crop. Depending on the presence of nutrients within the soil, crops will either grow to be strong and healthy, or they wither away. Similar to how infertile soil will prevent crops from growing, a traumatic environment can prevent development of key neurological pathways and behaviors.⁸⁷

Healthy development for an infant depends in large part on the infant's primary caregiver.⁸⁸ An infant's relationship with her caregiver can significantly influence whether the child develops healthy or maladaptive behaviors.⁸⁹ By interacting with their caregivers, infants learn how to regulate their emotional responses to external stressors, helping to engrain these adaptive behavioral pathways in the infant's brain.⁹⁰ These behavioral pathways formed during infancy can continue to influence the child's development through childhood and adolescence.⁹¹ Neglect from the caregiver disrupts the development of these adaptive behavioral pathways and causes the infant to develop maladaptive behaviors to regulate their emotions.⁹² Once these maladaptive behaviors begin to form, rehabilitation via establishment of a

affected by significant stresses that negatively affect their family and caregiving environments.”).

85. See van der Kolk, *supra* note 4, at 295–96.

86. See Bureau, *supra* note 4, at 48.

87. See *id.*; see also van der Kolk, *supra* note 4, at 296 (describing that infancy is when an individual begins to adopt stress management behaviors).

88. See Bureau, *supra* note 4, at 48.

89. *Id.*

90. See *id.* at 50; see also van der Kolk, *supra* note 4, at 295–96; Allan N. Schore, *Relational Trauma and the Developing Right Brain: The Neurobiology of Broken Attachment Bonds*, in RELATIONAL TRAUMA IN INFANCY: PSYCHOANALYTIC, ATTACHMENT AND NEUROPSYCHOLOGICAL CONTRIBUTIONS TO PARENT-INFANT PSYCHOTHERAPY, 28 (Tessa Baradon ed., 2010).

91. See Bureau, *supra* note 4, at 51; see also van der Kolk, *supra* note 4, at 295–96 (noting that the experiences in infancy can influence “across the lifespan”).

92. See Bureau, *supra* note 4, at 51.

healthy relationship becomes paramount, because if not remediated, these maladaptive behaviors become engrained and potentially inhibit the infant's long term ability to cope with stress.⁹³

When the body experiences a stressful event, it protects itself through the production of stress hormones.⁹⁴ Normally, this reaction only lasts as long as the traumatic trigger persists.⁹⁵ Yet, without the benefit of normal behavioral development, a neglected infant may lack the neural pathways that assist the body in returning to a state of equilibrium after a traumatic experience,⁹⁶ causing the infant to remain at a heightened state of arousal.⁹⁷ When this is coupled with potential future exposure to trauma, an infant may fall into a degenerative cycle of a constant state of heightened arousal.⁹⁸

As the traumatic experiences accumulate, the harm to the individual's long-term development can become more pronounced.⁹⁹ This

93. See *id.* at 50–51 (finding that lack of care even during the first year of an infant's life causes the inability for infants to respond to stressful situations in a healthy way, leading to maladaptive behaviors later in life); see also van der Kolk, *supra* note 4, at 295–96 (finding that having a present caregiver during infancy allows the brain to develop appropriate pathways to cope with external stressors).

94. See Bureau, *supra* note 4, at 50. These hormones have been associated with the commonly known “fight or flight” feeling. *Id.* These stress hormones better enable individuals to address and survive these perceived threats. See Nat'l Sci. Council on the Developing Child, *supra* note 84, at 2.

95. See van der Kolk, *supra* note 4, at 295–96. Once the traumatic event that triggered the individual's stress response subsides, the body returns to its baseline level. *Id.*

96. *Id.*

97. *Id.*; see also Heather C. Forkey, *Children Exposed to Abuse and Neglect: The Effects of Trauma on the Body and Brain*, 30 J. AM. ACAD. MATRIM. LAW. 307, 310–12 (2018) (noting that repeated exposure to stress inhibits the body's ability to recalibrate after a traumatic moment).

98. See van der Kolk, *supra* note 4, at 295–96.

99. This snowball effect of repeated exposure to traumatic experiences contributes to an environment of “toxic stress.” See *Toxic Stress*, CTR. ON DEVELOPING CHILD HARV. U., <https://developingchild.harvard.edu/science/key-concepts/toxic-stress/> (last visited Sept. 12, 2019). Toxic stress “refers to strong, frequent, or prolonged activation of the body's stress management system.” Nat'l Sci. Council on the Developing Child, *supra* note 84, at 2. These experiences with repeated stressors can further engrain maladaptive neural pathways related to stress management and regulation of one's emotions. *Id.* at 2; see also Bureau, *supra* note 4, at 50. Further, the

unhealthy exposure to stress at an early age may have a pervasive effect on the infant's neurological, emotional, and psychological development.¹⁰⁰ Without rehabilitation, the harms from trauma can become further exacerbated as the infant moves into childhood. Ultimately, unmitigated harm during infancy may result in lasting harm felt throughout the development of the individual.

B. Childhood and Beyond: Building on the Foundation Laid During Infancy

The foundation laid in infancy provides the framework for development of more complex skills and behaviors related to stress management during childhood.¹⁰¹ Returning to the analogy of the farmer, the years after infancy mark the time where the crops—the development of complex behaviors and neural pathways—begin to take root. The varying levels of exposure to stress during this period can determine how the formation of these stress management neural pathways and behaviors can either benefit or harm the individual.¹⁰²

Constant exposure to stressful situations during childhood may cause subtle alterations in the physical architecture of the child's brain.¹⁰³ These alterations often occur in areas primarily associated

long-term effect of trauma during infancy increases the risk of developing depressive type conditions as an adult. *Id.* at 50–51.

100. See Jack Shonkoff & Andrew Garner, *The Lifelong Effects of Early Childhood Adversity and Toxic Stress*, 129 *PEDIATRICS* e232, e237–38 (2012).

101. See van der Kolk, *supra* note 4, at 295–96; Nat'l Sci. Council on the Developing Child, *supra* note 84, at 3.

102. See Nat'l Sci. Council on the Developing Child, *supra* note 84, at 1–2 (explaining the various levels of exposure to stressful situations and their effect on neural and behavioral development related to coping with these stressful situations). Repeated exposure to stress also has been shown to compromise more than just an individual's ability to cope with stress. For example, repeated activation of a child's stress response system has been shown to inhibit immune response in the individual's suffering from these experiences. *Id.* at 3. Additionally, these experiences with repeated trauma can negatively affect cognitive abilities related to one's ability to learn like memory recall. *Id.*

103. See DUDLEY, *supra* note 10, at 5; see also Shonkoff & Garner, *supra* note 100, at e236 (“[T]oxic stress in young children can lead to less outwardly visible yet permanent changes in brain structure and function.”); van der Kolk, *supra* note 4, at

with responding to stress.¹⁰⁴ Constant exposure to stress can cause the amygdala—the area of the brain responsible for initiating the “flight or fight” response—to become overstimulated and overdeveloped.¹⁰⁵ This overdevelopment can cause the amygdala to “jump the gun” in response to innocuous stressors, sometimes leaving the child in a state of heightened anxiety.¹⁰⁶ This heightened level of anxiety can lead the child to become hyper-vigilant in searching for the next threat,¹⁰⁷ which ultimately can lead to the deleterious state of a child who never truly returns to calm.¹⁰⁸

In addition to the possible overdevelopment of the child’s stress response pathways, children exposed to childhood trauma are also at risk of developing an inability to regulate or deescalate their response to stress. Excessive stress can impede the development of the child’s hippocampus, the area responsible for regulating the stress response of the amygdala.¹⁰⁹ Meaning, the potential combination of over-stimulation coupled with the underdevelopment of the hippocampus leaves the child in a position like that of a car rolling downhill without any brakes. Once the car starts moving, nothing can stop it. This dual effect of overstimulation of the amygdala and the underdevelopment of the hippocampus further harms the child by causing the child to be unable to differentiate between safe and dangerous situations.¹¹⁰

The harm described above may also affect other facets of development like the that of the prefrontal cortex and the ability to make

304–06 (noting how stress can influence the development of the limbic system, hippocampus, and prefrontal cortex).

104. See DUDLEY, *supra* note 10, at 5.

105. See *id.*; see also Shonkoff & Garner, *supra* note 100, at e236 (noting how toxic stress can affect the size of the amygdala); van der Kolk, *supra* note 4, at 304–05 (explaining how the amygdala is responsible for the initial determination of whether a situation presents a threat).

106. See Shonkoff & Garner, *supra* note 100, at e236–37 (“This can then result in some children appearing to be both more reactive to even mildly adverse experiences and less capable of effectively coping with future stress.”).

107. *Id.*

108. *Id.*

109. See DUDLEY, *supra* note 10, at 5.

110. *Id.* at 6.

decisions.¹¹¹ The prefrontal cortex, like the hippocampus, underdevelops when the amygdala becomes overdeveloped.¹¹² A normally developed pre-frontal cortex allows the child to learn adaptive behaviors to avoid stress; however, the overstimulation of the amygdala causes the flight or fight response to override this adaptive learning process.¹¹³ The constant state of arousal impairs development of decision making related to stress management and stress avoidance.¹¹⁴ Further, because both the hippocampus and the prefrontal cortex suffer from underdevelopment, the overall ability of the child to regulate his or her emotions in response to stress and learn adaptive behaviors may greatly diminish.¹¹⁵

The potential for lasting harm caused by these subtle alterations in the brain have been well documented in studies of adults who have suffered through childhood trauma.¹¹⁶ In addition, childhood trauma has been associated with an increased risk of alcoholism,¹¹⁷ illegal drug use,¹¹⁸ intimate partner violence or sexual victimization,¹¹⁹ and violent

111. See van der Kolk, *supra* note 4, at 304–08.

112. See *id.* at 306–07; DUDLEY, *supra* note 10, at 6; Shonkoff & Garner, *supra* note 100, at e237.

113. See van der Kolk, *supra* note 4, at 306–07.

114. *Id.*

115. *Id.* at 305–07.

116. See Christine Heim & Charles B. Nemeroff, *The Role of Childhood Trauma in the Neurobiology of Mood and Anxiety Disorders: Preclinical and Clinical Studies*, 49 *BIO. PSYCHIATRY* 1023, 1033 (2001); Daniel P. Chapman et al., *Adverse Childhood Experiences and the Risk of Depressive Disorders in Adulthood*, 82 *J. AFFECTIVE DISORDERS* 217, 223 (2004); Elizabeth A. Schilling et al., *Adverse Childhood Experiences and Mental Health in Young Adults: A Longitudinal Survey*, *BMC PUB. HEALTH*, March 7, 2007, at 510.

117. See Shanta R. Dube et al., *Adverse Childhood Experiences and Personal Alcohol Abuse as an Adult*, 27 *ADDICTIVE BEHAVS.* 713, 722–24 (2002); see also Robert F. Anda et al., *Adverse Childhood Experiences, Alcoholic Parents, and Later Risk of Alcoholism and Depression*, 53 *PSYCHIATRIC SERVICES* 1001, 1005–07 (2002).

118. See Shanta R. Dube et al., *Childhood Abuse, Neglect, and Household Dysfunction and the Risk of Illicit Drug Use: The Adverse Childhood Experiences Study*, 111 *PEDIATRICS* 564, 570–71 (2003).

119. See Charles L. Whitfield et al., *Violent Childhood Experiences and the Risk of Intimate Partner Violence in Adults: Assessment in a Large Health Maintenance Organization*, 18 *J. INTERPERSONAL VIOLENCE* 166, 176–78 (2003); Katie A. Ports et

behavior.¹²⁰ Although, a full explanation of the causal link between these traumatic experiences and their effects on adult decision making eludes science, the known links raise serious concerns about their impact on decision making.

In examining the effects of childhood trauma above, a few themes arise. Children who suffer from early and frequent trauma become more susceptible to influence from environmental stimuli and often have compromised decision-making abilities. These characteristics of victims of childhood trauma resemble those characteristics the Supreme Court used in justifying its decision in recognizing constitutional bars to capital punishment for youth and intellectual disabilities.¹²¹

IV. AN ENVIRONMENTAL DEFENSE: DEVELOPING A FRAMEWORK TO ADDRESS THE EFFECTS OF ENVIRONMENTAL TRAUMA ON CRIMINAL CULPABILITY

Instead of examining each traumatic experience during childhood as a standalone event when determining culpability, a legal framework that captures the cumulative effect trauma can have on a child's development more accurately depicts the harm these children suffer. Traumatic experiences during childhood build upon each other, compounding the overall harm to the child.¹²² Examining each traumatic experience in a vacuum ignores this reality, while also undervaluing

al., *Adverse Childhood Experiences and Sexual Victimization in Adulthood*, 51 CHILD ABUSE & NEGLECT 313, 318–20 (2016).

120. See James A. Reavis et al., *Adverse Childhood Experiences and Adult Criminality: How Long Must We Live Before We Possess Our Own Lives?*, 17 PERMANENTE J. 44, 47 (2013); Bryanna Fox et al., *Trauma Changes Everything: Examining the Relationship Between Adverse Childhood Experiences and Serious, Violent and Chronic Juvenile Offenders*, 46 CHILD ABUSE & NEGLECT 163, 170 (2015).

121. See *supra* Part II.

122. The concept known as the “dose-response” captures the compounding harm of repeated traumatic experiences in childhood. Studies suggest that the continuous occurrence of these traumatic experience further exacerbates the harm caused to the child. See Metzler et al., *supra* note 81, at 142; Robert F. Anda et al., *The Enduring Effects of Abuse and Related Adverse Experiences in Childhood*, 256 EUROPEAN ARCHIVES OF PSYCHIATRY AND CLINICAL NEUROSCIENCE 174, 182 (2006); Felitti et al., *supra* note 5, at 251.

the role these experiences can have on mitigating an individual's culpability. In order to better reflect the true impact these repeated experiences can have on a child's development, a legal framework must be created that speaks to an "environment" of trauma contributing to the individual's development.

A. *Establishing a Framework for an Environmental Defense*

A defense based on the influence of one's environment received judicial recognition in *United States v. Alexander*.¹²³ In *Alexander*, the defendant, a black soldier, shot the victim after the victim hurled racial epithets at the defendant.¹²⁴ In an attempt to defend against his behavior, the defendant introduced evidence of his traumatic childhood, specifically his experiences with racial violence.¹²⁵ The defendant hoped this evidence would explain that when the victim hurled a racial epithet at him, it caused the defendant to reexperience the trauma of his youth, launching him into a murderous rage.¹²⁶ While the *Alexander* court expressed sympathy with the defendant's traumatic background, it affirmed the trial court's ruling to exclude such evidence because it failed to show that the defendant acted under a condition that affected his state of mind when he committed the crime.¹²⁷

In a complicated dissenting opinion, Chief Judge Bazelon approved of the defendant's use of his traumatic environment or "rotten social background" to exculpate his conduct.¹²⁸ Judge Bazelon found preclusion of the defendant's evidence ill-advised given that even in 1972, scientific evidence demonstrated links between adult criminality and growing up in traumatic environment as a child.¹²⁹ Further, this

123. 471 F.2d 923 (D.C. Cir. 1972).

124. *Id.* at 966.

125. *Id.*

126. *Id.*

127. *Id.* at 959–60. The *Alexander* court expressed hesitancy to admit evidence of the defendant's racially charged environment growing up, explaining that societal issues like racism were not on trial, but this defendant's criminal act. *Id.* at 968.

128. *Id.* at 965 (Bazelon, J., dissenting).

129. *Id.* at 965 n.122.

same evidence, for Judge Bazelon, served a higher purpose of educating the jury of the social problems that plagued certain populations.¹³⁰

Thirteen years after *Alexander*, a law review article examined and expanded on the concept of a defendant's "rotten social background" and the possible exculpatory effects it may have on a defendant's culpability.¹³¹ But, instead of just focusing in on experiences with racial discrimination like that in *Alexander*, the article broadened the scope of environmental factors considered in an individual's traumatic environment." Experiences such as growing up in an impoverished community or a crime-ridden neighborhood can have similar detrimental effects on a person's development as racial discrimination.¹³² By broadening the scope of what is considered in a defendant's background, a better picture of the defendant's true criminal culpability can be developed.¹³³

Because this type of argument does not neatly fit within available criminal defenses, obstacles arise when trying to argue the cumulative effects that certain environmental factors can play on a defendant's culpability.¹³⁴ For example, under a theory of insanity, this argument

130. *Id.* In later academic works, Judge Bazelon expounded upon his view expressed in *Alexander* and broadened the defense to be applicable in all avenues of criminal law, not just for arguing insanity. See David L. Bazelon, *The Morality of the Criminal Law*, 49 S. CAL. L. REV. 385, 397 (1976). Judge Bazelon also focused on the moral quandaries posed by imprisoning those who have suffered from these rotten social backgrounds without Society providing the necessary assistance to remedy them. *Id.* at 401–02.

131. See generally Richard Delgado, "Rotten Social Background": Should the Criminal Law Recognize a Defense of Severe Environmental Deprivation?, 3 LAW & INEQ. 9 (1985).

132. *Id.* at 23–34.

133. *Id.* at 24–34. Environmental factors like poverty, growing up in a crime-ridden area, or lack of adequate schools can all contribute to a "rotten social background." *Id.* The physical effects of these factors are better understood, while less understood is how these experiences shape one's perspective. *Id.* at 30–33. The individuals living in these environments develop an "alternative value system." *Id.* at 30. After living in a "rotten" environment for so long, the individual has had to develop behaviors and a worldview that are suited for this kind of environment. *Id.* at 30–33. These alternative values though, lead to problems when they are expressed in environments outside the one where the defendant grew up, potentially causing run-ins with law enforcement. *Id.*

134. See *id.* at 37–52.

could struggle to meet the necessary criteria in order to present a prima facie case.¹³⁵ An insanity defense requires the defendant to admit that he or she is insane.¹³⁶ The argument involving a traumatic environment does not rely on the defendant's insanity but that environmental factors have influenced the individual's decision-making to an extent he or she is not culpable.¹³⁷ Similar problems arise in trying to fit this argument in other existing criminal law defenses, leaving the viability of this argument to "a matter of chance" that a defendant meets the various requirements of existing criminal defense theories.¹³⁸ Ultimately, to avoid this game of chance and the uncertainty accompanying it, a new defense should be recognized exclusively applying to an individual's disadvantaged social environment. This has the benefit of allowing all forms of evidence speaking to an individual's disadvantaged social background to be admitted and avoids the pitfalls previously discussed.¹³⁹

Childhood trauma can have a similar effect as growing up in an impoverished community or dealing with racial violence.¹⁴⁰ Similar to how environmental factors such as poverty can influence a person's decision-making, lessening their culpability, childhood trauma can also contribute to the creation of a traumatic social environment that leaves the individual ill-equipped to face the world.¹⁴¹ If the cumulative effects of childhood trauma can be shown to have a deleterious effect on a child's development, these effects can lessen the person's criminal culpability, rendering capital punishment inapplicable.¹⁴²

135. *See id.* at 38.

136. *Id.* at 40. This admission by the defendant could result in the defendant being stigmatized and having to reside in a mental institution as part of their acquittal. *Id.*

137. *See id.*

138. *Id.* at 54.

139. *See id.*

140. *See supra* note 4 and accompanying text (discussing the effects of poverty on an individual's development); *supra* note 102 and accompanying text (explaining the effects childhood trauma can have on development).

141. Some effects of childhood trauma can be seen in how individuals respond to stressful experiences in life. *See supra* notes 101–02 and accompanying text.

142. *See* Part III (explaining how trauma stunts neurological, emotional, and psychological growth). The *Roper* Court addressed the idea of an overall level of lessened culpability regardless of one's action in determining the constitutionality of

B. Critiques of an Environmental Defense

Concerns about an environmental defense often focus on the personal choices of the defendant and the inherent ambiguity in analyzing the effects of these traumatic environments on culpability. Some argue that, although a child's environment can affect behavior, a criminal still makes a conscious choice to commit a crime and should be held criminally responsible because of that choice. Moreover, even if one concedes that the effects of the trauma legitimately caused a defendant to commit a crime, any legal standard might be arbitrary and ambiguous because of the uncertainty surrounding the casual effects of trauma on personal choice.¹⁴³

1. The Defendant's "Personal Choice" Creates Culpability

A personal choice separates the law-abiding citizen from the criminal defendant. This choice by the individual to commit a crime

executing juveniles. *Roper v. Simmons*, 543 U.S. 551, 569 (2005). When one takes into account the inherent differences between juveniles and adults, the juvenile, regardless of his act, "cannot with reliability be classified among the worst offenders." *Id.* Meaning, before the individual himself is even examined, the unique characteristics of a juvenile will make him generally less culpable. This inherent difference in culpability encouraged the *Roper* Court to prohibit the punishment. *Id.* at 570, 573.

In the childhood trauma context, the differences between children who have suffered from trauma and those who have avoided it are not as obvious as the differences between a child and an adult given the different physical manifestations. On one hand, the visible differences between a child and an adult are obvious and easily identified. On the other, the effects of trauma on a child can result in internal changes that cannot be identified without advanced medical testing. *See supra* Part III (discussing how trauma causes alterations in the brain architecture of the individual, primarily in regions related to stress management). Even with this difference, the detrimental effects of childhood trauma have been identified and studied. *See supra* Part III.

143. *See* Stephen J. Morse, *The Twilight of Welfare Criminology: A Reply to Judge Bazelon*, 49 S. CAL. L. REV. 1247, 1252–53 (1976) ("[T]here is no scientifically dictated cutting point where legal and moral responsibility begins or ends."); *see also* William Heisel, *Why We Should Think Critically When Reporting on Childhood Adversity*, USC ANNENBERG CTR. FOR HEALTH JOURNALISM (June 26, 2019), <https://www.centerforhealthjournalism.org/2019/06/03/why-we-should-tread-carefully-when-reporting-adverse-childhood-experiences> (demonstrating issues with relying heavily on ACEs and cautioning against its use to explain specific acts).

gives rise to criminal culpability justifying the punishment.¹⁴⁴ While a powerful rhetorical device, the personal choices of the defendant do not render an environmental defense inapplicable. First, courts recognize that not all choices are equal in establishing culpability.¹⁴⁵ Second, while personal choice leads to the culpability required by the criminal justice system, the absence of “choice” is a frequent defense.¹⁴⁶

The pervasive effect of childhood trauma on an individual’s neurological, emotional, and psychosocial development affects that individual’s choices.¹⁴⁷ For example, a victim of childhood trauma may have failed to properly develop processes related to stress management. When confronted with an external stressor, even an innocuous one, the individual’s brain might perceive it as a threat, causing him to “choose” to lash out in a violent manner to protect himself, resulting in a crime. The individual’s act technically arose from a choice, but that choice was influenced by years of trauma.

2. Inability to Develop a Workable Objective Standard

An environment-based defense suffers from an inherent level of ambiguity because one cannot quantify how much one’s environment influences his or her actions. How can one measure the influence that an individual’s environment has on his actions? How traumatic does the environment need to be for such a defense to arise? Just because there is some level of ambiguity does not render this issue forever standardless. As the Supreme Court explained in *Roper*, “a line must be drawn.”¹⁴⁸

144. Morse, *supra* note 143, at 1251–52.

145. See *Roper*, 543 U.S. at 570–73. Even in the case of homicide, a juvenile’s choice to kill does not give rise to a level of culpability that justifies execution when an adult making the same choice would justify execution. *Id.* at 570.

146. Defenses like justification, duress, or mental incapacity all recognize that a choice occurred, but the nature of the choice did not warrant attaching culpability. See Delgado, *supra* note 131, at 16–17. For example, only a voluntary choice by the defendant creates culpability. *Id.* at 17. An individual who acted under duress or coercion did not make a voluntary choice and therefore, no culpability will attach. *Id.* at 15–16.

147. See *supra* Part III.

148. 543 U.S. at 574.

In drawing this line, the use of ACEs promulgated from the Kaiser Permanente study help limit the concern of arbitrarily drawing lines. These ACEs, as evidenced by multiple studies, readily demonstrate detrimental effects to an individual's development and life outcomes.¹⁴⁹ In addition, the enumerated categories cover a vast range of traumatic experiences that occur throughout childhood but also exclude experiences not readily associated with negative life outcomes.¹⁵⁰ These ACEs therefore easily trace to real world experiences that harm individuals. By providing a scientifically recognized standard or criteria to examine these experiences, one can begin to at least quantify what experiences influence a person. The studies using ACEs can create a framework to explain what effects these experiences have on the defendant and his personal choices.

C. Creating a Standard Using Adverse Childhood Experiences

While ACEs provide a framework to recognize what experiences contribute to an environment of childhood trauma, the ACEs themselves do not alone determine when a constitutional bar for childhood trauma would activate or, said differently, when a childhood becomes traumatic enough to trigger that activation.¹⁵¹ As a result, a standard must help a court determine at what point a defendant's childhood trauma would make the death penalty inapplicable.¹⁵² Two interests must be balanced: protecting those who have suffered through the

149. See *supra* Part III; see also *supra* notes 116–20 and accompanying text.

150. See *supra* note 78 and accompanying text (describing the ACE categories).

151. The ACE categories are a set group of identified traumatic experiences in childhood. See Felitti et al., *supra*, note 5, at 248 & tbl.1. The ACEs, however, do not quantify the harm from each ACE experience but just provide a framework to identify these harmful experiences.

152. To clarify, the purpose of the standard does not completely exculpate the defendant seeking to activate this proposed bar. Instead, this bar, when activated, would only prohibit the sentence of death. Similar to that of youth status or intellectual disability, prevalence of enough ACEs in childhood should lessen the culpability of the defendant rendering the use of capital punishment unconstitutional. Additionally, if this bar does not become activated, this does not foreclose the defendant from still offering evidence of his traumatic childhood to convince the jury to forgo the death penalty. The current system related to capital punishment already allows for the defendant to offer mitigating evidence. See *Lockett v. Ohio*, 438 U.S. 586, 604 (1978)

worst childhood traumas while also retaining the deterrent and retributive force of the death penalty.¹⁵³ The ultimate question becomes how many traumatic experiences need occur for a defendant to utilize this proposed bar? This question can be answered by utilizing the ACEs.¹⁵⁴

Rarely will a criminal defendant present the court with only one ACE in their childhood.¹⁵⁵ The presence of one ACE almost certainly means the accompaniment of another.¹⁵⁶ The prevalence of possessing more than just one ACE in the criminal population means that developing a bar that becomes activated upon one adverse childhood experience would set the bar too low.¹⁵⁷ Therefore, the standard will have to exclude those with the presence of only one ACE to preserve the desired balance.

When weighing the statistical prevalence of the number of ACEs coupled with the risk of a more pronounced effect against the need to retain the purpose of the death penalty, four or more ACEs as the standard strikes the desired balance.¹⁵⁸ This determination arises

(concluding that the Eighth Amendment requires that “the sentencer . . . not be precluded from considering, as a mitigating factor, any aspect of a defendant’s character or record and any of the circumstances of the offense that the defendant proffers as a basis for a sentence less than death.” (emphasis omitted)).

153. See *Thompson v. Oklahoma*, 487 U.S. 815, 837 (1988) (noting that because so few defendants eligible for capital punishment were under sixteen, prohibiting the execution of them did not lessen the deterrent force of capital punishment). This balancing occurs because of the prevalence of childhood trauma within the prison population. See Reavis et al., *supra* note 120, at 47 (“Compared with a normative group of adult male subjects, we found among our group of criminals much higher rates of traumatic events.”). Because of this prevalence, if the standard is more inclusive or lenient to apply, then capital punishment as a penological force would suffer.

154. See generally Felitti et al., *supra* note 5.

155. See Reavis et al., *supra* note 120, at 46 (showing in Table 1 that only twenty percent of inmate defendants presented with one or less ACE); see also Felitti et al., *supra* note 5, at 251 (discussing how a majority of their patients who presented with one ACE also presented with at least one more).

156. See *supra* note 151 and accompanying text.

157. See Reavis et al., *supra* note 120, at 46. Data shows that the percentage of criminal defendants with more than one ACE in their childhood constituted around 75% of the sample population studied.

158. Setting the standard at four or more ACEs is further supported by “dose-response” nature of ACEs. As more ACEs accumulate, the more harm to the child. See *supra* note 122 and accompanying text.

from, first, setting the standard here would ensure that the applicable pool of possible individuals remains small,¹⁵⁹ and second, the presence of four or more ACEs marks a threshold where the detrimental effects of childhood trauma can become more pronounced, at least when compared to individuals that present with no ACEs.¹⁶⁰ Two or more ACEs

159. The group of individuals that present with four or more ACEs when compared to group of individuals with three or less ACEs constituted the smallest subset in the initial ACEs study. See Felitti et al., *supra* note 5, at 251 (finding individuals with four aces constituted 6.2% of the subjects studied). This same finding can generally be seen in other studies. See Dube et al., *supra* note 118, at 567 (noting that individuals with four or more ACEs made up 16.4% of the population studied); Mariette J. Chartier et al., *Separate and Cumulative Effects of Adverse Childhood Experiences in Predicting Adult Health and Health Care Utilization*, 34 CHILD ABUSE & NEGLECT 454, 458 (2010) (finding that out of the population studied, 7% presented with four or more aces). A national study conducted by the CDC tends to confirm that individuals that present with four or more ACEs constitute the smallest subset. See *Behavioral Risk Factor Surveillance System ACE Data*, CTRS. FOR DISEASE CONTROL & PREVENTION <https://www.cdc.gov/violenceprevention/childabuseandneglect/aces-tudy/ace-brfss.html> (last visited Sept. 9, 2019) (finding that individuals with 4 or more ACEs made up 15.8% of the population surveyed). The focus on keeping the applicable group as small as possible stems from the desire to maintain capital punishment as a penological force. See *supra* note 154.

160. Karen Hughes et al., *The Effect of Multiple Adverse Childhood Experiences on Health: A Systematic Review and Meta-Analysis*, 2 LANCET PUB. HEALTH e356, e356 (2017) (“Individuals with at least four ACEs were at increased risk of all health outcomes compared with individuals with no ACEs.”); Chandra Ghosh Ippen et al., *Traumatic and Stressful Events in Early Childhood: Can Treatment Help Those at Highest Risk?*, 35 CHILD ABUSE & NEGLECT 504, 505 (2011) (discussing the implications of the presence of 4 or more traumatic and stressful events during childhood marks a point for a marked increased risk for negative outcomes); see also Felitti et al., *supra* note 5, at 245 (finding that those with four or more ACEs had a substantial increase in risk for alcoholism, drug abuse, and depression); Anda, *supra* note 117, at 1005 (“[A]dults who reported four or more adverse childhood experiences were two to ten times as likely as adults who had no adverse childhood experiences to report other forms of substance abuse, including illegal drug use, parenteral drug abuse, and smoking.”); Chapman et al., *supra* note 116, at 222 (finding that individuals with four or more ACEs had the highest likelihood of developing depressive disorders as an adult); Metzler et al., *supra* note 81, at 144 (finding that presentation of four or more ACEs correlates with an increased risk of poverty in adulthood and lack of education attainment).

would create too large a pool of applicable defendants.¹⁶¹ The presence of three or more ACEs would help narrow the pool, but, again, concern would arise that the bar would become applicable for too large a pool of defendants.¹⁶²

A standard of four or more ACEs protects defendants who have suffered the worst childhoods. By protecting these defendants from the death penalty, the standard ensures that those who have been traumatized throughout their childhood are not then executed when the effects of their childhoods influence their actions as adults. Moreover, it ensures that those without the ability to form the requisite culpability for capital punishment crimes are not subject to our most severe form of punishment.

V. CONCLUSION: THE LIFE OF SEAN

After learning about the evolution of current constitutional bars and the U.S. Supreme Court's focus when establishing these bars, and after reviewing the current science around the effects of childhood trauma, the following hypothetical puts the above standard into context.¹⁶³ After hearing the jury's verdict, Sean's heart drops. The words of the jury foreman ring in Sean's ears. "Guilty." Sean has just been found guilty of first-degree murder. From the outset, the up-and-coming prosecutor trying Sean's case has pushed for the death penalty. Lost for words, Sean glances up at his attorney, looking for some explanation, some refuge. Sean's attorney leans toward Sean and quickly explains to him that the trial is not over. The ultimate question still remains: will Sean be sentenced to the death penalty? Now, Sean's legal team must transition to the sentencing phase of the trial. In hoping to persuade the jury to not levy the ultimate punishment, Sean will offer the best evidence he has, his life experience. In offering this evidence,

161. See Felitti et al., *supra* note 5, at 251. Allowing two or more would constitute about a fourth of the population that participated in the study. *Id.*

162. For example, in the *ACE Study*, for three or more ACEs, the population would constitute about 13.1% of the population. *See id.*

163. Some of the facts for this hypothetical have been loosely adapted from real cases. *See Rompilla v. Beard*, 545 U.S. 374 (2005); *Wiggins v. Smith*, 539 U.S. 510 (2003).

Sean hopes the jury will see that, despite the nature of the crime, Sean does not deserve the death penalty.

Born into an impoverished inner-city community,¹⁶⁴ Sean will lay the foundation of how his life diverged from that of a more advantaged child. His mother suffered from alcoholism and drank throughout her pregnancy.¹⁶⁵ She often could not hold a job for longer than a couple months. This meant Sean often went days without a proper meal. As a result of her consistent unemployment, Sean's mother could not adequately take care of him. Sean's mom turned to alcohol, and the alcohol eventually made her violent. On "good nights," Sean could expect his mother to berate him, "reminding" him how he ruined her life and how he resembled his father, who was serving a 25-year prison sentence and had never been present in Sean's life. On the more traumatic nights, Sean's mom would beat him with a belt. A lasting physical reminder from these nights runs up Sean's back. Yet, the worst nights happened when Sean's mother would lock him in the freezer in the basement. After lowering himself into the freezer, Sean watched his mother shut the lid, saw the world darken around him, and then heard the click of the lock on the latch to the freezer.¹⁶⁶

During his teen years, Sean left his mother's house to live with his aunt and uncle. For a brief period, Sean found respite from the traumas of his mother's house. His aunt and uncle did not drink or beat him. For the first time in his life, Sean was properly fed and clothed. However, this brief respite ended when Sean's uncle began to sexually abuse him around the time of his eleventh birthday.¹⁶⁷ This abuse continued until Sean's aunt found out and sent Sean back to live with his mother.

Back at his mother's house, Sean's mom continued to drink, but she no longer resorted to physical abuse. Instead, she would just demean and berate. Eventually, Sean left his mother's house at the age

164. See *supra* note 4 for a discussion on the effects of poverty on child development.

165. See generally Dube et al., *supra* note 117, for a discussion of the risks of later-in-life alcoholism for children who witnessed alcoholism growing up.

166. See generally Felitti et al., *supra* note 5 (identifying emotional and physical abuse as adverse childhood experiences).

167. Childhood sexual abuse is a risk factor for intimate partner violence later in life, either as victim or perpetrator. See *supra* note 119.

of eighteen. On his own, Sean discovered he did not have many marketable skills. He read at a sixth-grade reading level and struggled to do basic math. After bouncing around from low-paying job to low-paying job, Sean eventually turned to illegal means to make money, which culminated in a tragic killing and a charge of first-degree murder. At the conclusion of the trial, the jury must decide, is Sean (and others sharing similar traumatic childhoods) deserving of the ultimate punishment?