



Roper and Race: the Nature and Effects of Death Penalty Exclusions for Juveniles and the “Late Adolescent Class”

Craig Haney¹ · Frank R. Baumgartner² · Karen Steele³

Received: 20 October 2022 / Revised: 11 November 2022 / Accepted: 14 November 2023 / Published online: 5 January 2023
© The Author(s) 2022

Abstract

In *Roper v. Simmons* (2005), the US Supreme Court raised the minimum age at which someone could be subjected to capital punishment, ruling that no one under the age of 18 at the time of their crime could be sentenced to death. The present article discusses the legal context and rationale by which the Court established the current age-based limit on death penalty eligibility as well as the scientific basis for a recent American Psychological Association Resolution that recommended extending that limit to include members of the “late adolescent class” (i.e., persons from 18 to 20 years old). In addition, we present new data that address the little-discussed but important racial/ethnic implications of these age-based limits to capital punishment, both for the already established *Roper* exclusion and the APA-proposed exclusion for the late adolescent class. In fact, a much higher percentage of persons in the late adolescent class who were sentenced to death in the post-*Roper* era were non-White, suggesting that their age-based exclusion would help to remedy this problematic pattern.

Keywords Late adolescent class · Death penalty eligibility · Racial/ethnic consequences

In a landmark capital case decided nearly 20 years ago, the US Supreme Court ruled that no one under the age of 18 at the time their crime was committed could be sentenced to death (*Roper v. Simmons*, 2005). The *Roper* decision overturned an opinion the Court had rendered a little more than a decade and a half before, *Stanford v. Kentucky* (1989), which had set the minimum age at 16. The *Roper* Court premised its decision to modify the age limit on two sets of empirical facts that the majority concluded had significantly changed since its earlier ruling. As evidence of the nation’s “evolving standards of decency” on the issue, the Court cited a new “national consensus” against imposing the death penalty on juveniles. In addition, relying on its own reading of then-current social, developmental, and neuropsychological research, the Court concluded that reliable and valid scientific evidence had been developed showing that the death penalty was categorically disproportionate for persons under

the age of 18. The latter basis of the *Roper* Court’s opinion—that evidence of behavioral, cognitive, and emotional immaturity lessened legal determinations of culpability so significantly as to require a categorical exclusion from death penalty imposition—is of obvious interest to scholars seeking to understand whether and how psychological knowledge can play an important role in constitutional decision-making (e.g., Steele, 2021).

Moreover, as we will further discuss, there is now more recent scientific evidence suggesting that *Roper*’s logic can and should be *extended* to 18- to 20-year-olds—members of what has been termed the “late adolescent class” (e.g., Lark, 2021), an age group whose neuropsychological status pediatric neuropsychologists are called upon to examine and comment upon in various legal settings, including as mitigation in capital cases where death is sought as a penalty. (Throughout this article, we use the term “juveniles” to refer to persons aged 17 years and under, and “late adolescent class” to refer to persons 18, 19, and 20 years old.) After reviewing the legal context and logic of *Roper*’s age-based limitation on the imposition of the death penalty, the present article briefly examines this more recent scientific evidence and discusses how and why it supports applying the *Roper* age-based exclusion to members of the late adolescent class. In discussing this issue, we acknowledge and rely on, among

✉ Craig Haney
psylaw@ucsc.edu

¹ Department of Psychology, University of California, Santa Cruz, CA 95063, USA

² University of North Carolina, Chapel Hill, USA

³ Salem, OR, USA

other sources, the articles contained in a recent Special Issue of this journal (Leark, 2021) as well as a recent Resolution passed by the American Psychological Association summarizing the latest social, developmental, and neuropsychological research and recommending that the same legal rationales used in *Roper* apply to the late adolescent class. If followed, this Resolution would legally bar 18- to 20-year-olds from being sentenced to death. (The background and history of Resolution that was overwhelmingly approved by the APA's Council of Representatives is contained in the Appendix A of this article, along with a list of the members of the APA Presidential Task Force who drafted it. The text of the Resolution itself is contained in Appendix B). Both appendices are included as the supplementary material in the online version only.

The second issue that we address has been largely overlooked in discussions of these age-based exclusions—namely, the degree to which excluding members of the *Roper* and late adolescent classes from the death penalty disproportionately affects young defendants of Color (those identified as Black, Latino, and Other). In examining the racial/ethnic consequences of implementing *Roper*'s already existing exclusion and its potential extension to the late adolescent class, we analyze a comprehensive database of death penalty verdicts rendered between 1972—immediately following the post-*Furman v. Georgia* (1972) reinstatement of capital punishment in the United States—and the end of 2021. We focus specifically on the intersection of age and race/ethnicity in the distribution of the death sentences rendered in capital cases over that time period. To the extent to which death sentences were and still are disproportionately imposed on young persons of Color, the *Roper* and potential late adolescent class exclusions indirectly operate to alleviate this specific form of racial bias.

The Legal Context and Logic of *Roper*

Although its actual application is very much debated, longstanding constitutional doctrine provides that only persons who commit the very worst crimes and manifest the greatest degree of culpability may be subjected to the worst punishment (i.e., capital punishment). Under existing death penalty statutes, the determination of whether someone is eligible for the death penalty turns in part on the nature of the crime for which they have been convicted (i.e., only certain crimes that have additional factors associated with them that presumably make them “the worst” qualify). In addition, jurors are given discretion to decide whether they believe a capital defendant is so culpable that he or she deserves to be sentenced to death—typically through a process by which jurors are instructed to balance and weigh negative or “aggravating” factors against positive or “mitigating” factors pertaining to the crime(s) and to the person's background and other characteristics.

As death penalty doctrine has evolved, however, rather than relying wholly on prosecutors and juries to make case-by-case determinations of the seriousness of the crime and the culpability of the defendant, the Court has imposed certain limited prohibitions against death penalty eligibility (e.g., Haney et al., 2015). Thus, in addition to establishing that no person convicted of a crime in which there was no loss of life can be “death-eligible” (*Louisiana v. Kennedy*, 2008), defendants with certain characteristics are now, as a group, exempt from capital punishment. For example, persons who have “intellectual disabilities”—what the Court described as “not only subaverage intellectual functioning, but also significant limitations in adaptive skills such as communication, self-care, and self-direction that became manifest before age 18” (*Atkins v. Virginia*, 2002, p. 318)—cannot be sentenced to death.

Another notable categorical prohibition, and the focus of the present article, pertains to the age of the defendant. In deciding that defendants who were not yet 18 at the time of the crime with which they were accused cannot be sentenced to death, the Court in *Roper v. Simmons* (2005) analyzed two very different kinds of empirical evidence. The first kind, which the Court characterized as providing it with “essential instruction” (p. 564), focused on the level of societal acceptance of the practice; that is, whether there was now a national consensus against applying the death penalty to juveniles (i.e., persons under the age of 18). Looking primarily at the enactments of state legislatures and other related official practices (including states banning the juvenile death penalty, declining to use it when it was possible to do so, and commuting death sentences that previously had been imposed on juveniles), and using them as indices of “evolving standards of decency,” the Court concluded that “today our society views juveniles as “categorically less culpable” than adults (p. 567, quoting *Atkins*).

In addition to considering evidence of a national consensus, the *Roper* Court then brought its “own independent judgment” to bear on the question. Explicitly considering what was then-current psychological research, the Court reached three important empirical conclusions about the characteristics of persons under the age of 18. Specifically, the Court concluded that, in comparison to adults: (1) juveniles' lack of maturity and underdeveloped sense of responsibility made them more likely to engage in “impetuous and ill-considered actions and decisions” (p. 569), (2) juveniles were less emotionally stable and simultaneously more “vulnerable and susceptible to negative influences and outside pressures... in their whole environment” (p. 569–570) and, finally, (3) that because the “character of a juvenile” was “more transitory, less fixed” and “not as well formed,” persons under the age of 18 were more capable of being “reformed” (p. 570). Although explicit citations to the psychological literature in the Court's opinion were not

extensive, their empirical assertions were buttressed with several references to key developmental research on the behavioral, cognitive, and emotional limitations of adolescents (specifically, Arnett, 1992; Steinberg & Scott, 2003) and to venerable work on social identity formation by Erik Erikson (1968).

In combination, the three fundamental ways that the Court found juveniles differed *as a group* from adults significantly undermined the penological justifications on which the Justices had traditionally relied to uphold capital punishment—retribution and deterrence. Thus, as the *Roper* Court acknowledged, the goal of retribution—punishing in proportionate response to the wrongdoing—would be substantially undermined if “the law’s most severe punishment” were to be meted out against a group that was deemed categorically less culpable than the typical (adult) capital defendant. Similarly, the Justices acknowledged that the same characteristics of juveniles that rendered them less culpable also made them “less susceptible to deterrence” (p. 571). That is, their immaturity, impulsivity, and influenceability meant juveniles were less likely to respond to the threat of death penalty imposition.

It is noteworthy that the American Psychological Association submitted an Amicus Brief in *Roper*, urging the Court to exempt juveniles from capital punishment, as the Justices eventually did in the case. Although the *Roper* majority did not mention the APA Brief directly, and explicitly cited to only two of the more than 60 scholarly references it contained, the Court’s reasoning tracked the APA’s argument very closely. This suggested that, whether the Court was overtly influenced by the numerous developmental and neuropsychological studies included in the APA Amicus or not, scientific research demonstrating juveniles’ comparative lack of impulse control, greater vulnerability to external influences, and as yet not completely defined, more malleable, developing (i.e., not “irretrievable”) character or personality (*Roper v. Simmons*, 2005, p. 570) provided key empirical grounds for this important age-based exclusion. The Court later used essentially the same logic and empirical basis to prohibit *mandatory* life sentences for persons whose crimes were committed before they reached age of 18, except in cases of murder (*Graham v. Florida*, 2010), to subsequently modify the prohibition to include any crime, even homicide (*Miller v. Alabama*, 2012), and to make the prohibition retroactive to previously sentenced defendants (*Montgomery v. Louisiana*, 2016).

***Roper* and the “Late Adolescent Class”**

In the years following *Roper*, a significant body of new research appeared that not only corroborated the Court’s developmental and neuropsychological conclusions and supported the age-based death penalty exclusion the Justices

had imposed in the case, but also has provided a strong scientific basis for extending the exclusion to a slightly older group of defendants—members of the late adolescent class that includes 18- to 20-year-olds. In fact, if anything, a much deeper and more extensive database now exists that both buttresses the *Roper* Court’s culpability and deterrence analyses and supports extending the age-based exclusion to the older group.

Although some of research on the social, development, and neurobiological changes that occur after the age of 17 was published prior to the *Roper* decision, the question of whether members of the late adolescent class should be eligible for death as a penalty was not before the Court at the time of the *Roper* decision and thus was not considered. That research and the numerous studies published since *Roper* have documented a host of age-based limitations that members of the late adolescent class share with juveniles. For example, the capacity and level of maturity to function effectively and make rational decisions—including to cognitively process information, regulate and control emotional reactions, avoid undue risk-taking, and block out attentional interference, peer influences, and stress—all continue to mature well past the age of 17 (e.g., Casey et al., 2022; Shulman & Cauffman, 2014; Rudolph, et al., 2017; Willoughby, et al., 2013). Longitudinal studies of the personality traits that are associated with extreme forms of behavior (such as violence and substance abuse) show that they are modified and wane over time as juveniles mature from adolescence into young adulthood (e.g., Baskin-Sommers et al., 2015). Research also suggests that the presence of peers tends to affect the risk-taking behavior of late adolescents, as it does for juveniles, waning only as they mature (e.g., Albert et al., 2019).

The continuing cognitive, emotional, and behavioral development that members of the late adolescent class experience is paralleled by brain development that occurs well past 17. As Casey et al. (2022) put it, “[n]ow the science shows unambiguously that 18-, 19-, and 20-year-olds are more similar than different from 17-year-olds in many important respects of behavioral and brain maturity” (p. 337). Numerous neuroscientific studies have found that the brain development of 18- to 20-year-olds is not substantially different from that of 17-year-olds (e.g., Bigler, 2021; Casey et al., 2022; Gur, 2021). More specifically, extensive research demonstrates that significant ongoing growth and maturation occurs well past age 17, affecting members of the late adolescent class (Somerville, 2016). Neuroimaging results document “dynamic changes of the brain,” including in brain function and structure, that continue well past the current *Roper* cutoff age (e.g., Bigler, 2021), and developmental neuroscience establishes that significant maturation of the brain continues through at least age 20 (e.g., Bigler, 2021; Gur, 2021; McCaffrey & Reynolds, 2021; Somerville,

2016). Studies also show that cognitive performance in emotionally arousing situations is more adversely affected for late adolescent class members than for adults, and that this difference “is paralleled by dynamic developmental changes in prefrontal circuitry” (Cohen, et al., 2016, p. 559). As Gur (2021) summarized the findings of a number of large-scale studies, “protracted development of brain tissue and its connectivity... continues into the early 20s” (p. 55).

Moreover, the specific similarities in psychosocial and neurological development occur along precisely the dimensions on which the *Roper* Court premised its age-based death penalty exclusion—the tendency to take ill-considered actions, to be emotionally vulnerable and more easily influenced, and personality formation that is more changeable and capable of growth (e.g., Harden & Tucker-Drob, 2011; Roberts et al., 2006; Steinberg et al., 2017). In addition to increased socio-emotional maturity and behavioral change, we now know that members of the late adolescent class undergo significant change in the key brain systems implicated in the capacity to evaluate behavioral options, to make rational decisions about behavior (including considering the consequences of their actions), and whether to act, or not, in a particular way (e.g., Casey et al., 2022; Casey et al., 2020; McCaffrey & Reynolds, 2021).

Thus, a substantial amount of research now indicates that, as the APA Resolution concluded, the differences between members of the late adolescent class and adults with respect to these capacities are at least as “marked and well understood” (*Roper v. Simmons*, 2005, p. 572) as those that distinguished adults from the group of juveniles excluded under *Roper*. Numerous studies now show that the same youthful and immature cognitive, behavioral, and emotional characteristics that apply to 16- and 17-year-olds—the ones on which the Court focused to categorically exempt them from capital punishment—are similarly present in 18- to 20-year-olds. Applying the logic of *Roper*, members of this group, too, should be considered not only as less culpable than adults but also less susceptible to whatever deterrent value the death penalty might have. Subjecting the late adolescent class to capital punishment thus fails to further the penological goals of retribution and deterrence on which the Court has relied.

The Racial/Ethnic Implications of Extending *Roper* to the Late Adolescent Class

We turn now to a separate but closely related issue—whether there are racial/ethnic disparities in the application of the death penalty that are or would be affected by age-based prohibitions, including those affected by *Roper* and the proposed exclusion of late adolescent class members. There is a wealth of data documenting the adverse outcomes that

persons of Color experience at the hands of the American criminal justice system. The disproportionate outcomes range from a greater likelihood of arrest, harsher bail outcomes, to increased probabilities of conviction, higher numbers of wrongful convictions, and comparatively harsher punishments meted out overall (Ghandnoosh, 2015; Gross et al., 2022; Mitchell & MacKenzie, 2004; Nellis, 2021; O’Brien & Grosso, 2020; Sentencing Project, 2013; Spohn, 2017; Sweeney & Haney, 1992).

These racial/ethnic disproportions also extend to the administration of the death penalty. Indeed, racial factors clearly affect many aspects of the system of death sentencing in the United States, where Black defendants are evaluated more unfavorably by capital jurors, perceived as more “deathworthy,” more likely to be sentenced to death, and to be executed than their White counterparts, especially when their victims were White (Baldus et al., 1998; Beckett & Evans, 2016; Eberhardt, et al., 2006; Haney, 2004; Keil & Vito, 2006; Lyman et al., 2021; Lynch & Haney, 2000, 2009, 2011a, 2011b; Phillips & Marceau, 2020). In short, they are over-punished as perpetrators and under-valued as victims in capital cases (Baumgartner et al., 2015). In addition, because of their greater level of opposition to capital punishment, persons of Color are disproportionately excluded from participation on capital juries through the process of “death qualification” (e.g., Haney et al., 2022), exclusions that can impact the likelihood jurors will convict and return a death sentence (e.g., Bowers et al., 2001; Cowan et al., 1984).

In combination, these factors contribute to the continuing over-representation of Black persons on death row in the United States. For example, as recently as 2014, the proportion of Black people on death row was more than three times the proportion of Black people in the national population (Ford, 2014; current statistics demonstrating continued over-representation also can be found at the Death Penalty Information Center web site: <https://deathpenaltyinfo.org/>). Racial factors also appear to influence death penalty policies and practices at a broader level. Thus, among the factors that account for the geographical concentrations of death sentencing in the small number of jurisdictions that produce the greatest number of such sentences is the community’s racial make-up; that is, death sentencing occurs more often in counties with large Black populations (Garrett et al., 2017). As Baumgartner et al. (2020) concluded, “if there is any statistical pattern” to the distribution of death sentences across the United States, “it is indeed race” (p. 2).

To examine whether and how racialized patterns might be related to the age of capital defendants, and therefore might be affected by age-based exclusions from death eligibility, we conducted an analysis of a comprehensive dataset of all death penalty verdicts ($N=8733$) that were rendered in the United States in the “modern era” death sentencing (i.e., immediately following the *Furman v. Georgia*

Table 1 Summary of race of persons sentenced to death, 1972–2021

Race	Number	Percent
White	3917	44.85
Black	3432	39.30
Hispanic	672	7.69
Other	179	2.05
Missing/unknown	533	6.10
Total	8733	100.00

Table 2 Summary of ages of persons sentenced to death, 1972–2021

Age group	Number	Percent
Less than 18 years old	235	2.69
18 to 20 years old	1319	15.10
21 years and older	6936	79.42
Missing/unknown	243	2.78
Total	8733	100.00

(1972) decision through the end of 2021). The total of 8733 includes death sentences meted out to defendants for whom age and/or race/ethnicity could not be determined; they are designated as “missing” in the tables that follow. This is the period during which the *Furman*-inspired death penalty reforms were being implemented, presumably designed to narrow eligibility (to only the most heinous cases and culpable defendants) and to regularize the death-sentencing process itself. We examined whether and how defendants’ race/ethnicity and their age were related to the distribution of the death sentences rendered in capital cases over this 50-year time period (Baumgartner, 2022).

As Table 1 illustrates, persons of Color (those identified as Black, Hispanic, and Other) received a plurality of the death sentences that were meted out in the United States since 1972, for capital defendants of all ages. The over-representation is especially acute for Black defendants, who alone accounted for 39.30% of them.

Taking age separately into account, Table 2 shows that a relatively small number ($N=235$) of persons under the age of 18 were sentenced to death over this period, accounting

for just 2.69% of the total. This indirectly supports the *Roper* Court’s general assertion that the imposition of the juvenile death penalty had become a relatively rare event in US society. In contrast, a much greater percentage of persons in the 18- to 20-year-old late adolescent class received death sentences during the same period. Although the late adolescent class encompasses a fairly narrow 3-year age range, more than one out of every seven death sentences (15.2%) rendered in the USA since 1972 was imposed on members of this group.

However, when the combination of the defendants’ race/ethnicity as well as their ages is taken into account, several marked disproportions emerge. For one, as Table 3 depicts, even though juvenile death sentences were rare over this 50-year period (representing just 235 of the 8733 total death sentences), a majority of them (61.28%) were imposed on defendants of Color, with nearly half (48.94%) imposed on Blacks alone. This compares to about a third that were imposed on White defendants. The disproportion for the late adolescent class is similarly striking over this period, with not only many more death sentences (1319 of the total) being imposed on this age group, but also with fully 61.33% meted out to defendants of Color and, again, nearly half (48.52%) to Black defendants alone. Table 3 also shows that the percentages of death sentences were more evenly distributed across race and ethnicity for older capital defendants. Thus, for defendants age 21 and above, nearly half (48.14%) of the death sentences were imposed on Whites, and a still disproportionate but nearly comparable percent (46.63%) on defendants of Color.

Of course, in the post-2005 period, after *Roper*, there were no death sentences imposed on juveniles in the United States. As Table 4 shows, however, the racial/ethnic disproportions were especially pronounced for members of the late adolescent class, who now represent the youngest cohort still eligible for capital punishment in the United States. For example, following *Roper*, an actual majority (51.41%) of the death sentences that were meted out to members of the late adolescent class were imposed on Black defendants. Note also that the percent of Hispanic defendants grew to nearly a quarter of persons in the late adolescent class who were sentenced to death in the

Table 3 Age groups by race

Age:	Under 18		18 to 20		21 +		Missing		Total	
	N	%	N	%	N	%	N	%	N	%
Race										
White	77	32.77	442	33.51	3339	48.14	59	24.28	3917	44.85
Black	115	48.94	640	48.52	2602	37.51	75	30.86	3432	39.30
Hispanic	26	11.06	139	10.54	490	7.06	17	7.00	672	7.69
Other	3	1.28	30	2.27	143	2.06	3	1.23	179	2.05
Missing	14	5.96	68	5.16	362	5.22	89	36.63	533	6.10
Total	235	100.00	1319	100.00	6936	100.00	243	100.00	8733	100.00

Table 4 Race and age characteristics of persons sentenced to death since *Roper*

Age: Race	18 to 20		21 +		Missing		Total	
	N	%	N	%	N	%	N	%
White	29	20.42	465	44.20	9	21.43	503	40.70
Black	73	51.41	409	38.88	14	33.33	496	40.13
Hispanic	35	24.65	145	13.78	6	14.29	186	15.05
Other	3	2.11	29	2.76	0	0.00	32	2.59
Missing	2	1.41	4	0.38	4	0.38	19	1.54
Total	142	100.00	1052	100.00	42	100.00	1236	100.00

post-*Roper* years. This percentage increased substantially from the representation of Hispanics among late adolescent class members who were sentenced to death in the entire 50-year period since *Furman* (10.54%), compared to the number in the more recent post-*Roper* period (24.65%).

In fact, the overwhelming majority of members of the late adolescent class who were sentenced to death in the post-*Roper* period were persons of Color—fully 78.17%—in contrast to only one in five (20.42%) who were White.

Discussion

The developmental and neuropsychological data that underpin the *Roper* age-based death penalty exclusions are compelling. If anything, the data have become much stronger since *Roper* was decided, in part because of the sheer number of additional studies and the increased sophistication with which they were conducted. Moreover, as we have suggested, consistent with the APA Task Force Resolution on the issue, the studies apply with equal if not greater force to members of the late adolescent class. That is, the research we have summarized clearly shows that brain structure and function continue to develop well beyond the 18th birthday, with correspondingly significant maturation and improved cognitive, behavioral, and emotional capacities.

This ongoing social, emotional, and neurological development, that occurs at both structural and functional levels, is especially relevant to the issues of culpability and deterrence, on which the Court focused in *Roper*. As Casey and her colleagues summarized, the developmental changes that continue to affect members of the late adolescent class “are relevant to criminal behavior and involve brain circuitry implicated in decision-making” (Casey et al., 2022, p. 329). The new research on the continuing social and neurological development of the late adolescent class documents exactly the same dimensions of immaturity that the *Roper* Court found should exempt juveniles from capital punishment—the greater tendency to engage in ill-considered actions, their emotional instability and susceptibility to outside influence, and the “less fixed” nature of their character—rendering them, collectively, at risk of insufficient culpability to

support a death verdict, and less likely to be deterred by the threat of its imposition.

Additionally, persons who engage in serious violent behavior of the sort that may lead to capital prosecutions, including members of the late adolescent class, are, as a group, more likely to have been exposed earlier in their lives to multiple risk factors, developmental traumas, and what have been termed “adverse childhood experiences,” or “ACEs” (e.g., Haney, 2020). Research shows that there may be neurological as well as behavioral consequences of exposure to these risk factors, traumas, and adverse experiences (e.g., Bethell, et al., 2014; Herzog & Schmal, 2018; Masten & Cicchetti, 2010; Powell, 2022; Weems, et al., 2021). Among other things, prolonged exposure to such experiences and events can result in developmental delays and can impair neurological maturation. This means that a sizable sub-group of members of the late adolescent class who are subject to the death penalty are likely to be even more neurologically, cognitively, and emotionally immature than the baselines established in the research we have cited. They are, therefore, even less culpable than representative samples from this age group whose relevant limitations are well-documented in the research we have cited.

Although the developmental and neurological data we have cited on the late adolescent class are of relatively recent origin, most having been amassed over the last two decades, the pattern of age-related decreasing involvement in criminal behavior, as adolescents mature into adulthood, is not. In fact, it may be the most reliable, long-standing finding in all of criminology. Called the “age-crime” or “desistance” curve, the pattern has been documented over many decades of study (e.g., Quetelet, 2003 [1831]; Laub & Sampson, 2001) and is so reliable as to be characterized as one of the discipline’s “brute facts” (Hirschi & Gottfredson, 1993, p. 553). This brute fact—that criminality declines precipitously as young persons move from their teenage to adult years—means, among other things, that subjecting members of the late adolescent class to capital punishment threatens them with irrevocable, life-ending consequences at or just before a crucial inflection point, when their propensity to engage in crime is beginning a significant decline. Being sentenced to death robs them of the opportunity to demonstrate future

positive change at precisely the time when they are on the verge of attaining the developmental, neuropsychological, and other capacities to do so.

In addition, as the death-sentencing data we have presented underscore, there is a significant racial/ethnic dimension to this injustice. Late adolescent class members of Color have been sentenced to death in far greater numbers than their White counterparts. Although the overall racial/ethnic over-representation has plagued death sentencing in the United States across the entire time period under study, and for all age groups, including for juveniles in the pre-*Roper* era, the proportion of late adolescent class members of Color who were sentenced to death dwarfed the number of Whites in the period after *Roper* was decided. As we reported, among members of the late adolescent class, nearly four out of five of death sentences imposed were meted out to defendants of Color. This disproportion is far more pronounced than the over-representation of defendants of Color in any other age group.

It is difficult to envision a plausible explanation for this pattern of results that is based on the objective characteristics of the crimes or the defendants in question. Instead, it seems clear that decision-makers at key stages of a capital case—prosecutors and jurors—are more likely to *perceive* crimes committed by young persons of Color as more heinous or otherwise more deserving of the death penalty, or to believe that young persons of Color are somehow and for some reason less likely to be rehabilitated, or are otherwise simply more culpable for their actions. In addition, it may be easier to dehumanize them—an important element in convincing a jury that death is an appropriate punishment (Haney, 2004). Without knowing the demographic makeup of the universe of cases in which the death penalty was possible during this time period, it is impossible to know whether racial bias operated at the stages of prosecutorial selection (i.e., deciding which cases should be filed and tried capitally), at the jury decision-making stage (where capital jurors choose to sentence defendants either to life or death), or both. We know from various studies that sentencing outcomes are often related to the identities of the victims in these crimes, not the defendants (Baumgartner et al., 2015, 2016). But the racial disproportions in imposition that we have uncovered suggest that the pursuit and/or imposition of the death penalty is far more palatable in the case of young defendants of Color than for Whites in this age group.

Long-standing research reflects the various ways in which the behavior of young persons of Color tends to be negatively stereotyped, stigmatized, and even criminalized in US society and in its institutional systems. For example, in early work that helped sensitize researchers to what eventually has been labeled the “school to prison pipeline,” Ferguson (2001) described the nature of the encounters and implicit biases that helped explain the criminalization of Black youth

in schools, where they are subsequently punished more harshly than White students (e.g., Falzone, 2022; Morris & Perry, 2016). Once they enter the juvenile justice system, researchers have found that Black and Latino youth are more likely than Whites to be placed in juvenile detention and waived to criminal court (Zane, et al., 2022a, 2022b). Some have suggested that young persons of Color are more susceptible to media and political stereotyping that exacerbate “the public’s anxieties about race and crime” (Rios, 2008, p. 99). More recent studies indicate that Black youth, in particular, are significantly more likely to be perceived incorrectly as older, less innocent, and more culpable for their actions (Goff, et al., 2014; Rattan et al., 2012). In addition, Black youth are more likely to be transferred to adult court and less likely to be diverted into treatment-oriented interventions—that is, they may be seen as “growing up faster” in the eyes of prosecutors and probation officers who have greater discretion to make placement decisions in the juvenile system (Zane et al., 2022a, 2022b). These race-based differences in the perception and treatment of youthful defendants of Color are entirely consistent with our findings with respect to death penalty imposition for members of the late adolescent class.

More than for juveniles, the more adult-like outward physical appearance of the slightly older members of the late adolescent class may disadvantage them, especially, by masking their underlying, non-obvious developmental and neurological immaturity. Legal decision-makers appear to be particularly susceptible to ignoring this underlying immaturity in the case of youthful defendants of Color. Indeed, they may be overlooking much more in these cases. In predictable ways, racial/ethnic status, economic marginalization, and exposure to adverse childhood experiences are commonly inter-related in American society (Haney, 2004, 2020; Rucker & Richeson, 2021; Steele et al., 2016), so much so that this nexus of structural disadvantage should routinely function as a form of powerful mitigation for defendants of Color. That is, it should be expected to produce the *opposite* pattern of results from the one we found, especially when present in the case of defendants whose relative youth also should categorically lessen their culpability and provide decision-makers with the reasonable expectation of positive growth and maturation.

Indeed, although the capital sentencing process is in theory designed to allow jurors to consider and take into account the mitigating significance of a capital defendant’s cumulative disadvantages, in practice it often produces the opposite outcomes, ones that amplify pre-existing biases against members of groups that have already suffered forms of racial/ethnic, age-related, economic, intellectual, mental health, gender, and other stigmas and disadvantages (e.g., Farr, 2022; Haney, 2004). The pattern uncovered in the data we have presented here underscores the folly of expecting that legal decision-makers will consistently use structural

disadvantage and age-related limitations properly and apply them in intended ways on a case-by-case basis. That is, these data clearly give lie to the notion that prosecutors or capital jurors can and will give appropriate mitigating weight to the joint vulnerabilities of youthful immaturity and race/ethnicity-related social historical barriers. This is especially the case when, among other things, death qualification ensures that capital juries will be composed of comparatively greater numbers White members who find it more difficult to cross the empathic divide between themselves and a capital defendant of Color (Lynch & Haney, 2011a, 2011b), even (and perhaps especially) when they are members of the otherwise vulnerable late adolescent class.

We believe the data we have presented show the continuing value of categorical exemptions. The majority in *Roper* was correct in asserting that, although case-by-case determinations of culpability may remain a “central feature of death penalty sentencing,” there are instances in which categorical class differences are “too marked and well understood,” such that the risk is too great that the death penalty will be unreliably imposed on class members (*Roper v. Simmons*, 2004, p. 573). In fact, these data clearly show that, as to those most directly affected by the *Roper* decision and members of the late adolescent class, a defendant of Color was at risk of having both age *and* race “counted against him.”

Conclusion

This article has examined several issues raised by the US Supreme Court’s *Roper v. Simmons* (2005) decision and its aftermath, including the scientific basis for extending a *Roper*-like exclusion to members of the late adolescent class, consistent with a recent APA Resolution. In contrast to their adult counterparts, members of the late adolescent class are being held to account in capital cases for actions that are more likely to be the product of developmental and neurological immaturity. Their actions are also less reflective of a durable character than of immature decision-making and impulsivity, which also make them less responsive to any deterrent effect that the threat of death penalty imposition might have.

Much of the research that has documented the behavioral, cognitive, and emotional similarities between 17-year-olds, who are now exempt from death penalty imposition, and 18- to 20-year-olds, who are not, was conducted over the last two decades, since *Roper* was decided. As knowledge of these basic and important similarities becomes an increasing part of the ongoing national conversation about the fairness of the death penalty, and the issue receives added attention from state legislators and other criminal justice decision-makers, we would expect a consensus against this practice to emerge, as it eventually did in the case of juveniles in the pre-*Roper*

years (Steele, 2021). Indeed, Meggitt’s (2021) summary of state and federal legislation, regulations, and constitutional provisions that have explicitly recognized the need to impose special restrictions as well as special protections for persons up to the age of 21 suggests an already emerging trend in other areas of the law, one that implicitly or explicitly takes this body of scientific knowledge into account.

Beyond the jurisprudential logic of *Roper* and its extension to the late adolescent class, we have documented the significant racial/ethnic implications of implementing age-based limits to death penalty eligibility. As our analysis showed, the deeply troubling patterns of racialized death sentencing in the United States not only included the group of persons who were most directly affected by the *Roper* exclusion (juveniles under the age of 18 who were previously subject to death penalty imposition) but, even more dramatically, late adolescent class members of Color, who have been sentenced to death in extremely high numbers. In this way, the extension of a *Roper*-like exclusion to the late adolescent class would not only be scientifically justified but also have the salutary effect of reducing the disproportionate imposition of capital punishment on young persons of Color.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s40817-022-00134-0>.

Declarations

Conflict of Interest The authors have no competing interests to declare that are relevant to the content of this article. Craig Haney was a member of the APA Presidential Task Force that drafted the Resolution referred to in the article.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Albert, D., Chein, J., & Steinberg, L. (2019). The teenage brain: Peer influences on adolescent decision making. *Psychological Science*, 22(2), 114–120.
- Arnett, J. (1992). Reckless behavior in adolescence: A developmental perspective. *Developmental Psychology*, 12, 339–373.
- Atkins v. Virginia, 536 U.S. 304 (2002).
- Baldus, D., Woodworth, G., Zuckerman, D., & Weiner, N. (1998). Racial discrimination and the death penalty in the post-Furman era: An empirical and legal overview with recent findings from Philadelphia. *Cornell Law Review*, 83(6), 1638–1770.

- Baskin-Sommers, A., Waller, R., Fish, A., & Hyde, L. (2015). Callous-unemotional traits trajectories interact with earlier conduct problems and executive control to predict violence and substance use among high risk male adolescents. *Journal of Abnormal Child Psychology*, 43, 1529–1541.
- Baumgartner, F., Grigg, A., & Mastro, A. (2015). #BlackLivesDon'tMatter: Race of victim effects in U.S. executions, 1976–2013. *Politics, Groups, and Identities*, 3(2), 209–221.
- Baumgartner, F., Johnson, E., Wilson, C., & Whitehead, C. (2016). These lives matter, those ones don't: Comparing execution rates by the race and gender of the victim in the U.S. and in the top death penalty states. *Albany Law Review*, 79(3), 797–860.
- Baumgartner, F. (2022). Race and age characteristics of those sentenced to death before and after *Roper*. Chapel Hill: University of North Carolina, Department of Political Science. June 21. <https://fbaum.unc.edu/papers/RaceAndAgeAfterRoper.pdf>
- Baumgartner, F., Box-Steffensmeier, J., Campbell, B., Caron, C., & Sherman, H. (2020). Learning to kill: Why a small handful of counties generates the bulk of US death sentences. *PLoS ONE*, 15(10), e0240401. <https://doi.org/10.1371/journal.pone.0240401>
- Beckett, K., & Evans, H. (2016). Race, death, and justice: Capital sentencing in Washington State, 1981–2014. *Columbia Journal of Race and Law*, 6(2), 77–114.
- Bethell, C. D., Newacheck, P., Hawes, E., & Halfon, N. (2014). Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. *Health Affairs*, 33(12), 2106–2115. <https://doi.org/10.1377/hlthaff.2014.0914>
- Bigler, E. (2021). Charting brain development in graphs, diagrams, and figures from childhood, adolescence, to early adulthood: Neuroimaging implications for neuropsychology. *Journal of Pediatric Neuropsychology*, 7, 27–54.
- Bowers, W., Steiner, B., & Sandys, M. (2001). Death sentencing in Black and White: An empirical analysis of the role of jurors' race and jury racial composition. *University of Pennsylvania Journal of Constitutional Law*, 3, 171–274.
- Casey, B. J., Taylor-Thompson, K., Rubien-Thomas, E., Robbins, M., & Baskin-Sommers, A. (2020). Healthy development as a human right: Insights from developmental neuroscience for youth justice. *Annual Review of Law and Social Science*, 16, 9.1–9.20.
- Casey, B., Simmons, C., Somerville, L., & Baskin-Sommers, A. (2022). Making the sentencing case: Psychological and neuroscientific evidence for expanding the age of youthful offenders. *Annual Review of Criminology*, 5, 321–343.
- Cohen, A., Breiner, K., Steinberg, L., Bonnie, R., et al. (2016). When is an adolescent an adult? Assessing cognitive control in emotional and nonemotional contexts. *Psychological Sciences*, 27(4), 549–562.
- Cowan, C., Thompson, W., & Ellsworth, P. (1984). The effects of death qualification on jurors' predisposition to convict and on the quality of deliberation. *Law and Human Behavior*, 8(1–2), 53–79.
- Eberhardt, J., Davies, P., Purdie-Vaughns, V., & Johnson, S. (2006). Looking deathworthy: Perceived stereotypicality of Black defendants predicts capital-sentencing outcomes. *Psychological Science*, 17(5), 383–386.
- Erikson, E. (1968). *Identity: Youth and crisis*. Norton.
- Falzone, G. (2022). Case studies in social death: The criminalization and dehumanization of six Black and Latino boys. *Urban Review*, 94, 233–254.
- Farr, K. (2022). Intellectual disability and mental illness among women sentenced to death in the U.S.: Constitutional and evidentiary dilemmas. *Punishment & Society*, 24(4), 571–591.
- Ferguson, A. (2001). *Bad boys: Public schools in the making of Black masculinity*. University of Michigan Press.
- Ford, M. (2014). Racism and the execution chamber. The Atlantic. June 23. <http://www.theatlantic.com/politics/archive/2014/06/race-and-the-death-penalty/373081/>
- Furman v. Georgia, 408 U.S. 238 (1972).
- Garrett, B., Jakubow, A., & Desai, A. (2017). The American death penalty decline. *Journal of Criminal Law & Criminology*, 107(4), 561–642.
- Ghandnoosh, N. (2015). Black lives matter: Eliminating racial inequity in the criminal justice system. Washington, DC: The Sentencing Project. <https://www.sentencingproject.org/publications/black-lives-matter-eliminating-racial-inequity-in-the-criminal-justice-system/>
- Goff, P., Jackson, M., DiLeone, B., Culotta, C., & DiTomasso, N. (2014). The essence of innocence: Consequences of dehumanizing Black children. *Journal of Personality and Social Psychology*, 106(4), 526–545. <https://doi.org/10.1037/a0035663>
- Graham v. Florida, 560 U.S. 48 (2010).
- Gross, S., Possley, M., Otterbourg, K., Stephens, K., Weinstock Paredes, J., & O'Brien, B. (2022). Race and wrongful convictions in the United States, 2022. Irvine, CA: National Registry of Exonerations, September. <https://www.law.umich.edu/special/exonerations/Documents/Race%20Report%20Preview.pdf>
- Gur, R. (2021). Development of brain behavior integration systems related to criminal culpability from childhood to young adulthood: Does it stop at 18 years? *Journal of Pediatric Neuropsychiatry*, 7, 55–65.
- Haney, C. (2004). Condemning the “other” in death penalty trials: Biographical racism, structural mitigation, and the empathic divide. *DePaul Law Review*, 53, 1557–1590.
- Haney, C. (2020). *Criminality in context: The psychological foundations of criminal justice reform*. APA Books.
- Haney, C., Weill, J., & Lynch, M. (2015). The death penalty. In B. Cutler & P. Zapf (Eds.), *APA handbook of forensic psychology* (pp. 451–510). APA Books.
- Haney, C., Zurbriggen, E., & Weill, J. (2022). The continuing unfairness of death qualification: Changing death penalty attitudes and capital jury selection. *Psychology, Public Policy, and Law*, 28(1), 1–31.
- Harden, K., & Tucker-Drob, E. (2011). Individual differences in the development of sensation seeking and impulsivity during adolescence: Further evidence for a dual systems model. *Developmental Psychology*, 47(3), 739–746. <https://doi.org/10.1037/a0023279>
- Herzog, J., & Schmahl, C. (2018). Adverse childhood experiences and the consequences on neurobiological, psychosocial, and somatic conditions across the lifespan. *Frontiers in Psychology*, 9(420), 1–8. <https://doi.org/10.3389/fpsy.2018.00420>
- Hirschi, T., & Gottfredson, M. (1983). Age and the explanation of crime. *American Journal of Sociology*, 89(3), 552–584.
- Keil, T., & Vito, G. (2006). Capriciousness or fairness: Race and prosecutorial decisions to seek the death penalty in Kentucky. *Journal of Ethnicity in Criminal Justice*, 4(3), 27–49.
- Laub, J. H., & Sampson, R. J. (2001). Understanding desistance from crime. *Crime and Justice: A Review of Research*, 28, 1–69.
- Leark, R. (2021). An introduction to the Special. *Journal of Pediatric Neuropsychology*, 7, 1–2.
- Louisiana v. Kennedy, 554 U.S. 407 (2008).
- Lyman, T., Baumgartner, F., & Pierce, G. (2021). Race and gender in capital-charged Louisiana homicide cases, 1976–2014. *Southern University Law Review*, 49(1), 153–208.
- Lynch, M., & Haney, C. (2000). Discrimination and instructional comprehension: Guided discretion, racial bias, and the death penalty. *Law and Human Behavior*, 24(3), 337–358.
- Lynch, M., & Haney, C. (2009). Capital jury deliberation: Effects on death sentencing, comprehension, and discrimination. *Law and Human Behavior*, 33, 481–496.
- Lynch, M., & Haney, C. (2011a). Looking across the empathic divide: Racialized decision-making on the capital jury. *Michigan State Law Review*, 2011, 573–607.

- Lynch, M., & Haney, C. (2011b). Mapping the racial bias of the White male capital juror: Jury composition and the “empathic divide.” *Law & Society Review*, 45(1), 69–102.
- Masten, A. S., & Cicchetti, D. (2010). Developmental cascades. *Development and Psychopathology*, 22(3), 491–495. <https://doi.org/10.1017/S0954579410000222>
- McCaffrey, R., & Reynolds, C. (2021). Neuroscience and death as a penalty for late adolescence. *Journal of Pediatric Neuropsychology*, 7, 3–8.
- Meggitt, A. (2021). Trends in laws governing the behavior of late adolescents up to age 21 since *Roper*. *Journal of Pediatric Neuropsychology*, 7, 74–87. <https://doi.org/10.1007/s40817-021-00102-0>
- Miller v. Alabama, 567 U.S. 460 (2012).
- Mitchell, O., & MacKenzie, D. L. (2004). *The relationship between race, ethnicity, and sentencing outcomes: A meta-analysis of sentencing research*. Final Report Submitted to the National Institute of Justice.
- Montgomery v. Louisiana, 577 U.S. 190 (2016).
- Morris, E., & Perry, B. (2016). The punishment gap: School suspension and racial disparities in achievement. *Social Problems*, 63, 68–86. <https://doi.org/10.1093/socpro/spv026>
- Nellis, A. (2021). *The color of justice: Racial and ethnic disparity in state prisons*. The Sentencing Project.
- O’Brien, B., & Grosso, C. (2020). Criminal trials and reforms intended to reduce the impact of race: A review. *Annual Review of Law and Social Science*, 16, 117–130.
- Phillips, S., & Marceau, J. (2020). Whom the state kills. *Harvard Civil Rights-Civil Liberties Law Review*, 55, 601–674.
- Powell, K. (2022). The age-graded consequences of justice system involvement for mental health. *Journal of Research in Crime and Delinquency*, 59(2), 167–202.
- Quetelet, A. (2003) [1831]. Research on the propensity for crime at different ages. Translated by S.F. Sylveski. In P. Bean (Ed.), *Crime: Critical concepts in sociology* (pp. 119–135). Taylor & Francis.
- Rattan, A., Levine, C., Dweck, C., & Eberhardt, J. (2012). Race and the fragility of the legal distinction between juveniles and adults. *PLoS ONE*, 7(5), e36680. <https://doi.org/10.1371/journal.pone.0036680>
- Rios, V. (2008). The racial politics of youth crime. *Latino Studies*, 6(1–2), 97–115. <https://doi.org/10.1057/lst.2008.10>
- Roberts, B., Walton, K., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin*, 132(1), 1–25.
- Roper v. Simmons. (2005). 543 U.S. 551, 568.
- Rucker, J., & Richeson, J. (2021). Toward an understanding of structural racism: Implications for criminal justice. *Science*, 374, 286–290.
- Rudolph, M., Miranda-Dominguez, O., Cohen, A., Breiner, K., et al. (2017). At risk of being risky: The relationship of “brain age” under emotional states and risk preference. *Developmental Cognitive Neuroscience*, 24, 93–106.
- Sentencing Project (2013). Report of the Sentencing Project to the United Nations Human Rights Committee: Regarding racial disparities in the United States criminal justice system. Washington, DC: The Sentencing Project. <https://www.sentencingproject.org/publications/un-report-on-racial-disparities/>.
- Shulman, E., & Cauffman, E. (2014). Deciding in the dark: Age differences in intuitive risk judgment. *Developmental Psychology*, 50(1), 167–177.
- Somerville, L. (2016). Searching for signatures of brain maturity: What are we searching for? *Neuron*, 92(6), 1164–1167. <https://doi.org/10.1016/j.neuron.2016.10.059>
- Spohn, C. (2017). Race and sentencing disparity. *Reforming Criminal Justice: A Report of the Academy for Justice on Bridging the Gap between Scholarship and Reform*, 4, 169–186.
- Stanford v. Kentucky, 492 U.S. 361 (1989).
- Steele, K. (2021). The law, the science, and the logic of ending the teenage death penalty. *Journal of Pediatric Neuropsychology*, 7, 9–26. <https://doi.org/10.1007/s40817-021-00100-2>
- Steele, H., Bate, J., Steele, M., Dube, S., Danskin, K., et al. (2016). Adverse childhood experiences, poverty, and parenting stress. *Canadian Journal of Behavioural Science*, 48(1), 32–38.
- Steinberg, L., & Scott, E. (2003). Less guilty by reason of adolescence: Developmental immaturity, diminished responsibility, and the juvenile death penalty. *American Psychologist*, 58, 1009–2028.
- Steinberg, L., Icenogle, G., Shulman, E., Breiner, K., Chein, J., Bacchini, D., Chang, L., Chaudhary, N., Giunta, L., Dodge, K., Fanti, K., Lansford, J., Malone, P., Oburu, P., Pastorelli, C., Skinner, A., Sorbring, E., Tapanya, S., Tirado, L., ... Takash, H. (2017). Around the world, adolescence is a time of heightened sensation seeking and immature self-regulation. *Developmental Science*, 21(2), 1–13. <https://doi.org/10.1111/desc.12532>
- Sweeney, L., & Haney, C. (1992). The influence of race on sentencing: A meta-analytic review of experimental studies. *Behavioral Sciences and the Law*, 10, 179–195.
- Weems, C., Russell, J., Herringa, R., & Carrion, V. (2021). Translating the neuroscience of adverse childhood experiences to inform policy and foster population-level resilience. *American Psychologist*, 76(2), 188–202.
- Willoughby, T., Good, M., Adachi, P., Hamza, C., & Tavernier, R. (2013). Examining the link between adolescent brain development and risk from a social-developmental perspective. *Brain and Cognition*, 83, 315–323.
- Zane, S., Cochran, J., & Mears, D. (2022a). Deservingness and punishment in juvenile justice: Do Black youth grow up “faster” in the eyes of the court? *Youth Violence and Juvenile Justice*, 20(1), 412–462.
- Zane, S., Welsh, B., Mears, D. P., & Zimmerman, G. (2022). Pathways through juvenile justice: A system-level assessment of cumulative disadvantage in the processing of juvenile offenders. *Journal of Quantitative Criminology*, 38, 483–514. <https://doi.org/10.1007/s10940-021-09505-w>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.