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REVIEW

The Law, the Science, and the Logic of Ending the Teenage Death Penalty

Karen A. Steele[1]

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Abstract
Concepts of youth have long been relevant and significant to determinations of capacity responsibility and punishment. That relevance and significance has become more pronounced in the last several decades, through the U.S. Supreme Court's Eighth Amendment evolving standards decisions in *Thompson*, *Stanford*, *Atkins*, *Roper*, *Graham*, *Miller*, and *Montgomery*. For purposes of the teenage death penalty, given the shared, signature, culpability-diminishing characteristics of youth, and their relationship to legitimate penological objectives being measurably served, the Court's decisions recognize the necessity of categorical analysis rather than individual assessment. The current article reviews the legal foundation and analytical framework applicable to extending the categorical exemption from the death penalty from 17 through the age of 20 years, the role science plays in that determination, and applies the U.S. Supreme Court's analytical framework to data and testimony from a 2019 Oregon capital case, *Guzek v. Kelly*, concluding that current objective indicia demonstrate a consensus of American society disfavoring capital punishment, with the science confirming that conclusion.

Keywords Death penalty · Roper · Adolescence · Penological objectives · Miller

Proportionate—Not Excessive—Punishment in Furtherance of Legitimate Penological Objectives

The Eighth Amendment to the U.S. Constitution forbids cruel and unusual punishment and guarantees individuals the right not to be subjected to excessive sanctions (Miller v. Alabama 2012, p. 469). That right flows from the basic duty of government to respect the dignity of all persons (Roper v. Simmons 2005, p. 560; Graham v. Florida 2010, p. 59; Kennedy v. Louisiana 2008, p. 420; and Gregg v. Georgia 1976, p. 173), and leads to the basic precept of justice that punishment for crime should be graduated and proportioned to both the offender and the offense (Atkins v. Virginia 2002, p. 311; and Graham v. Florida 2010, p. 59). Thus, proportionality is central to the Eighth Amendment constitutional guarantees (Graham v. Florida 2010, p. 59). These concepts hold true not only under the federal constitution but various state constitutions as well.

Eighth Amendment analysis examines whether a criminal punishment or sentencing practice serves legitimate penological goals (Graham v. Florida 2010, p. 67), and recognizes that a "sentence lacking any legitimate penological justification is, by its nature, disproportionate to the offense" (Graham v. Florida 2010, p. 71). In relation to capital offenses, a state's sentencing scheme must not only further the penological goals of "retribution and deterrence of capital crimes by prospective offenders" (Atkins v. Virginia 2002, p. 319; Roper v. Simmons 2005, p. 571; and Kennedy v. Louisiana 2008, p. 441), but must meaningfully distinguish the few cases in which the death penalty is imposed from the many cases in which it is not (Furman v. Georgia 1972, p. 313). With respect to retribution, or the interest in "just desserts" for the commission of an offense, the U.S. Supreme Court holds that the "severity of the appropriate punishment necessarily depends on the culpability of the offender" (Atkins v. Virginia 2002, p. 319; and Roper v. Simmons 2005, p. 571).

> The goal…is to ensure morally appropriate judgments by ensuring that punishment is 'tailored to the offender's personal responsibility and moral guilt.' The Eighth Amendment cases that grapple with this end speak the

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✉ Karen A. Steele
kasteele@karenasteele.com

[1] Salem, OR, USA

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> general language of retributive desert. The Court's retributivism, however, is neither pure nor static. It is pluralistic and popular, not monistic and philosophical. (Bierschbach 2020, p. 5).

To the extent that the immutable and/or shared, signature, developmental characteristics of a class reflect diminished culpability, retributive aims and the severity of appropriate punishment must necessarily be lessened, and a categorical rule to effectuate Eighth Amendment protections is indicated (Atkins v. Virginia 2002, p. 319). With respect to deterrence, the Court has explained that the "theory of deterrence in capital sentencing is predicated upon the notion that the increased severity of punishment will inhibit criminal actors from carrying out murderous conduct" (Atkins v. Virginia 2002, p. 320). Deterrence is significant, therefore, only when the defendant, in fact, conducts "the cold calculus that precedes the decision to act" (Gregg v. Georgia 1976, p. 186), meaning capital punishment can only serve as a deterrent when the murderous conduct is the result of "premeditation and deliberation" (Atkins v. Virginia 2002, p. 319; Thompson v. Oklahoma 1988, p. 837; and Gardiner 1958). To the extent that the immutable and/or shared, signature, developmental characteristics of a class reflect reduced "capacity responsibility" including, e.g., characteristics that reduce susceptibility to deterrence generally and relative to a specific sentencing practice, a categorical rule to effectuate Eighth Amendment protections is indicated (Atkins v. Virginia 2002, p. 320). To pass constitutional muster, the death penalty must advance one or both penological goals significantly or measurably; failure as to either goal may render it unconstitutional as excessively disproportionate (Kennedy v. Louisiana 2008, p. 441). This is because, absent measurable contribution to one or both penological goals, capital punishment "is nothing more than the purposeless and needless imposition of pain and suffering and hence an unconstitutional punishment" (Atkins v. Virginia 2002, p. 319, quoting Enmund v. Florida 1982, p. 798).

The Role of Evolving Standards in Proportionate Punishment in Capital Cases

The authors of the Eighth Amendment drafted a categorical prohibition against the infliction of cruel and unusual punishment but made no attempt to define its contours, instead delegating that task to future generations of judges guided by the "evolving standards of decency that mark the progress of a maturing society" (Thompson v. Oklahoma 1988, p. 821, citing Trop v. Dulles 1958, p. 101). The U.S. Supreme Court has "recognized the propriety and affirmed the necessity of referring to the evolving standards of decency" in its Eighth Amendment analysis "to determine which punishments are so disproportionate as to be cruel and unusual" (Roper v. Simmons 2005, pp. 560-61, quoting Trop v. Dulles 1958, pp. at 100-01). The Eighth Amendment, therefore, "is not fastened to the obsolete but may acquire meaning as public opinion becomes enlightened by a humane justice" (Hall v. Florida 2014, p. 708); what may have been historically acceptable to the courts and society as a whole may not prove acceptable later in time (Roper v. Simmons 2005, p. 587, Stevens, J., concurring; Graham v. Florida 2010, p. 85; and Atkins v. Virginia 2002, p. 311). Given this foundation, courts' Eighth Amendment perspectives must be "less through a historical prism than according to the evolving standards" (Miller v. Alabama 2012, pp. 470-71, quoting Trop v. Dulles 1958, p. 101) which requires analysis of the punishment in question be based on the standards "that currently prevail" (Atkins v. Virginia 2002, p. 312; and Roper v. Simmons 2005, p. 561) among American society as a whole (Stanford v. Kentucky 1989, p. 392).

In applying proportionality review under evolving standards of decency, a court must first determine whether there is community consensus against a sentencing practice (Graham v. Florida 2010, p. 61), and/or whether there is consistency in direction of change relative to that sentencing practice (Atkins v. Virginia 2002, p. 315; and Roper v. Simmons 2005, p. 67). That determination includes consideration of current objective indicia as reflected in legislation and state practice (Roper v. Simmons 2005, p. 563). Those indicia include legislation among the states relative to the sentencing practice, an accounting of actual sentencing practices, professional organizational support for relevant policies, and other societal line-drawing, such as legislative and regulatory action relative to the class (see, e.g., Atkins v. Virginia 2002, p. 311 (emphasizing use of *current* indicia); and Kennedy v. Louisiana 2008, p. 434).

While entitled to great weight, community consensus does not, by itself, determine whether a punishment is cruel and unusual (Graham v. Florida 2010, p. 67, quoting Kennedy v. Louisiana 2008, p. 434). As a second step, independent of the consensus inquiry, the U.S. Supreme Court determines whether or not "there is a reason to disagree with the judgment reached by the citizenry and its legislators" (Atkins v. Virginia 2002, p. 313), bringing its own Eighth Amendment judgment to bear. In doing so, however, the Court holds that Eighth Amendment understanding and independent judgment "should not be, or appear to be, merely the subjective views of individual justices[,]" but, instead, those judgments "should be informed by objective factors to the maximum possible extent" (Stanford v. Kentucky 1989, p. 369). Among other things, courts' exercise of independent Eighth Amendment judgment incorporates "whether the challenged sentencing practice serves legitimate penological goals" (Graham v. Florida 2010, p. 67). As to a class, that judgment requires an understanding of the shared, signature, culpability-diminishing characteristics of those within the class, comparing the effects and implications of those characteristics relative to legitimate penological objectives and the category of crimes

in issue, to determine whether there exists a mismatch between culpability and the severity of punishment. Where a mismatch exists between the culpability of the class and the severity of the punishment, the sentencing practice is deemed disproportionate as to that class (see, e.g., Miller v. Alabama 2012, p. 71).

The death penalty is recognized as the most severe and irrevocable of punishments (Gregg v. Georgia 1976, p. 187, joint opinion of Stewart, Powell, and Stevens, JJ.), thus, it must be limited to cases of murder (Kennedy v. Louisiana 2008, p. 438), and reserved for the "worst of the worst" offenders (Roper v. Simmons 2005, p. 568). Considering the severity and irrevocability of the death penalty along with the requirement that it be reserved for the "worst of the worst" and most culpable of offenders consistently leads to the conclusion that the penological goals of the death penalty are not served by imposing it on a class of persons possessing diminished culpability. Thus, for example, the U.S. Supreme Court has found capital punishment to be unconstitutionally disproportionate based on the categorical mismatch between the severity and irrevocability of that punishment relative to the lesser culpability of the class of those with intellectual disability (Atkins v. Virginia 2002, p. 317-19), 15-year-olds (Thompson v. Oklahoma 1988, p. 838), and 16- and 17-year-olds (Roper v. Simmons 2005, p. 69). As to the two latter categories, the Court has noted that, "[r]etribution is not proportional if the law's most severe penalty is imposed on one whose culpability or blameworthiness is diminished, to a substantial degree, by reason of youth and immaturity" (Roper v. Simmons 2005, p. 571).

The Eighth Amendment applies to capital punishment with special force (Roper v. Simmons 2005, p. 568; and Thompson v. Oklahoma 1988, p. 856). This special force includes subjecting capital punishment to evolving standards analysis, which must be interpreted in a "flexible and dynamic manner" (Stanford v. Kentucky 1989, p. 369), and applied to reflect change in basic mores of society (Kennedy v. Louisiana 2008, p. 419). As noted, that analysis "should reflect our modern understandings of the human condition, and not our obsolete ideas of the past" (Michaels 2016). In doing so, it must "embrace and express respect for the dignity of the person" (Kennedy v. Louisiana 2008, p. 420), and, thus, moderation or restraint in the application of capital punishment (Kennedy v. Louisiana 2008, p. 435). To define and implement this principle, the U.S. Supreme Court has insisted on general rules to ensure consistency, moderation, and restraint in determining who is sentenced to death (limiting the death penalty to the "worst of the worst") "so as to prevent the penalty from being administered in an arbitrary and unpredictable fashion" (California v. Brown 1987, p. 541). Concurrently, the Court has required the consideration of the character and record of the individual offender and the circumstances of the particular offense as a constitutionally indispensable part of the process of inflicting the penalty of death (Woodson v. North Carolina 1976, p. 304; and Bierschbach 2020). Doctrinal tension has resulted, however, in the pursuit of both the general rules as reflected in the *Furman* line of cases and case-specific circumstances (including individual-specific characteristics) as reflected in the *Woodson-Lockett* line of cases. Some members of the U.S. Supreme Court have advocated adherence to general narrowing rules limiting capital punishment and abandonment of individual consideration (Kennedy v. Louisiana 2008, p. 436), whereas others have argued the failure to more strictly enforce narrowing rules raises "doubts concerning the constitutionality of capital punishment itself" (Kennedy v. Louisiana 2008, pp. 436-37). Recognizing the failure to find a unifying principle between the *Furman* line of cases and the *Woodson-Lockett* line of cases, the Court has "insisted upon confining the instances in which capital punishment may be imposed" (Kennedy v. Louisiana 2008, p. 437).

The Relevance of Youth to Determinations of Proportionate Punishment and the Impact of Evolving Standards on Those Determinations

A person accused of having committed a crime must be "blameworthy in mind" before being found guilty (Morissette v. United States 1952, p. 252; and LaFave 2003). The general rule (subject to certain exceptions) is that a guilty mind, or *mens rea*, is "a necessary element in the indictment and proof of every crime" (United States v. Balint 1922, p. 251). As Hart (2012) explains,

> the general requirement of mens rea is an element in criminal responsibility designed to secure that those who offend without carelessness, unwittingly, or in conditions in which they lacked the bodily or mental capacity to conform to the law, should be excused (Hart 2012, p. 178).

> This general requirement is necessary because it is, "not fair or just to claim that a defendant has satisfied the mental states requirement for guilt unless that defendant has the capacity to recognize and behave in accordance with legal and moral rules" (Hirstein et al. 2018, p. 80).

"Capacity responsibility" (Hart 2008) may be analyzed as to a particular defendant or as to a class of defendants generally possessing certain shared characteristics, including those that are immutable or generally occurring as a result of typical development. As to the latter category, differential treatment

of youths from that of adults flows from a recognition that children have "underdeveloped capacity for rational self-governance" and "reduced culpability" (Hirstein et al. 2018, p. 158; and see generally, Brink 2004). Under the common law, a child's excusal from legal responsibility was determined by the bright-line gauge of their age (LaFave 2003). Criminal capacity was generally presumed at the age of 14, whereas between the ages of 7 up to 14, a child was afforded a presumption of criminal incapacity, a presumption that could be rebutted (LaFave 2003). Beyond the common law, "[o]ur history is replete with laws and judicial recognition that minors, especially in their earlier years, generally are less mature and responsible than adults" (J.B.D. 2011, p. 274, quoting Eddings v. Oklahoma 1982, pp. 115-16). Thus, the U.S. Supreme Court has observed that "[a]n offender's age is relevant to the Eighth Amendment, and criminal procedure laws that fail to take defendants' youthfulness into account at all would be flawed" (Graham v. Florida 2010, p. 76).

Consistent with historical recognition of the relevance of youth to criminal culpability, Illinois Judge John Caverly, who presided over the 1924 Leopold and Loeb trial, identified the defendants' youth as the primary factor in imposing a sentence of life imprisonment rather than the death penalty.

> In choosing imprisonment instead of death, the court is moved chiefly by the consideration of the age of the defendants, boys of 18 and 19 years… This determination appears to be in accordance with the progress of criminal law all over the world and with the dictates of enlightened humanity (Loeb-Leopold Case 1925).

Despite Judge Caverly's enlightened sentencing of Leopold and Loeb, capital punishment in the USA for youth under the age 18 continued throughout the 20th Century. In *Thompson v. Oklahoma*, the U.S. Supreme Court held that "our standards of decency do not permit the execution of any offender under the age of 16 at the time of the crime" (Roper v. Simmons 2005, p. 56, citing Thompson v. Oklahoma 1988). Declining to extend its decision to persons under 18 at the time of the offense, as amici had argued, the *Thompson* Court made clear both the exact question it addressed (Thompson v. Oklahoma 1988, pp. 818-19), and the breadth of its decision as extending only to the class of persons under the age of 16 (Thompson v. Oklahoma 1988, p. 838). The *Thompson* Court used an Eighth Amendment evolving standards framework to conclude the death penalty unconstitutional for those under the age of 16 at the time of the commission of their crimes. In doing so, the Court noted an absence of state legislative efforts to execute a person less than 16 years of age; that juries imposed the death penalty on offenders under 16 "with exceeding rarity;" and, that a person under 16 years of age had not been executed in 40 years. These objective indicia led to the conclusion that a national consensus had developed against the practice of imposing and carrying out the death penalty against those within the class of persons under 16. Moreover, that conclusion was consistent with the policy statements of respected professional organizations and other nations (Thompson v. Oklahoma 1988, p. 835). As a final step, confirming its conclusion of national consensus, the *Thompson* Court noted its own independent judgment that "[t]he reasons why juveniles are not trusted with the privileges and responsibility of an adult also explain why their irresponsible conduct is not as morally reprehensible as that of an adult" (Thompson v. Oklahoma 1988, p. 835). The Court found both penological objectives—retribution and deterrence—compromised. Specifically, the death penalty was inappropriate as a form of retribution due to the lesser culpability of the class of offenders under 16, and it was ineffective as a means of deterrence given the low likelihood that those offenders engaged in "the kind of cost-benefit analysis that attaches any weight to the possibility of execution" (Thompson v. Oklahoma 1988, pp. 836-38).

One year later, then-current American contemporary standards of decency were not found to prohibit the execution of the class of offenders 16 and 17 years of age (Stanford v. Kentucky 1989). The *Stanford* decision so concluded based on its evaluation of the number of death penalty states then permitting the death penalty for 16-year-olds (22 of 37 death penalty states) and the number permitting it for 17-year-olds (25 of 37 death penalty states). In contrast with the categorical approach used in *Thompson*, the *Stanford* plurality concluded that the death penalty could be declared constitutionally deficient only if there is a consensus that "no one" within the class can reasonably be held fully responsible (Stanford v. Kentucky 1989, p. 376).

Parallel to the U.S. Supreme Court's consideration of youthfulness relative to proportionate punishment determinations, it has considered the culpability of the class of those with intellectual disability. On the same day the U.S. Supreme Court denied 16- and 17-year-olds an exemption from the sentencing practice of capital punishment, and similar to the plurality's analysis in *Stanford*, the Court's decision in *Penry v. Lynaugh,* rejected a categorical exemption for the class of those with intellectual disability, with Justice O'Connor noting that she could not conclude that "all [intellectually disabled] people, by definition, can never act with the level of culpability associated with the death penalty" (Penry v. Lynaugh 1989, pp. 338-39). Thirteen years after *Penry* was decided, in *Atkins v. Virginia*, the U.S. Supreme Court rejected the efficacy of the individual assessment approach and categorically excluded all intellectually disabled individuals from the death penalty. Finding intellectually disabled individuals "categorically less culpable than the average criminal" (Atkins v. Virginia 2002, p. 316), the *Atkins* Court concluded that the derivative effects of the reduced mental capacity of that class, as a whole, enhanced the risk that the death penalty would be imposed in spite of

factors which may call for a less severe penalty (Atkins v. Virginia 2002, p. 320-21).

The U.S. Supreme Court's 2005 Decision in *Roper v. Simmons*

In 1993, at the time of the crimes for which he was convicted and sentenced to death, Simmons was 17 years of age, and the U.S. Supreme Court did not exempt 17-year-olds from the death penalty (*Stanford v. Kentucky*). Simmons nonetheless argued before the Missouri Supreme Court that to execute him for a crime committed when he was under 18 years of age was cruel and unusual punishment in violation of the Eighth Amendment. The Missouri Court applied evolving standards analysis to then-current societal standards—not to societal standards as existed at the time of the U.S. Supreme Court's 1989 decision in *Stanford v. Kentucky*. Applying both the approach used by the U.S. Supreme Court in *Atkins v. Virginia* and using indicia reflecting standards of decency circa 2003, the Missouri Court found that a national consensus had developed against the practice of imposing and carrying out the death penalty against 16- and 17-year-olds (State ex rel. Simmons v. Roper 2003, p. 399). The Missouri Court found consensus was based upon,

> the fact that eighteen states now bar such executions for juveniles, altogether, that no state has lowered the age of execution below 18 since *Stanford*, that five states have legislatively or by case law raised or established the minimum age at 18, and that the imposition of the juvenile death penalty has become truly unusual over the last decade (State ex rel. Simmons v. Roper 2003, p. 399).

Given its finding of a national consensus barring the execution of 16- and 17-year-olds, the Missouri Court concluded that the U.S. Supreme Court would hold that the execution of persons for crimes committed when they were under 18 years of age violates the evolving standards of decency that mark the progress of a maturing society, and, therefore, was prohibited by the Eighth Amendment to the United States Constitution (State ex rel. Simmons v. Roper 2003, p. 413).

Seeking review of the Missouri Court's decision in favor of Simmons, petitioner Warden Roper presented the U.S. Supreme Court with following question: "[i]s the imposition of the death penalty on a person who commits a murder at age seventeen 'cruel and unusual,' and thus barred by the Eighth and Fourteenth Amendments?" Courts "do not, or should not, sally forth each day looking for wrongs to right" (United States v. Sineneng-Smith 2020, p. 1579). Thus, when the U.S. Supreme Court granted certiorari on the exact question put forward by Warden Roper, it framed the question decided (Brockett v. Spokane Arcades, Inc. 1985, p. 501) (the Court does not "anticipate a question of constitutional law in advance of the necessity of deciding it;" and does not "formulate a rule of constitutional law broader than is required by the precise facts to which it is to be applied"). The *Roper* Court's grant of certiorari (and its decision) on that specific question remain significant today given that "[q]uestions which merely lurk in the record, neither brought to the attention of the court nor ruled upon are not to be considered as having been so decided as to constitute precedent" (Webster v. Fall 1925, p. 512). As the Court later acknowledged, *Roper* "tailored its analysis of juvenile characteristics to the specific question whether juvenile offenders could constitutionally be subject to capital punishment" (Graham v. Florida 2010, p. 89, Roberts, C.J., concurring in the judgment).

Sixteen years after *Stanford*, the *Roper* Court upheld the decision of the Missouri Court (Roper v. Simmons 2005, pp. 578-79), finding that there had developed a national consensus against the execution of those who were 16 or 17 years of age at the time of the offense (Roper v. Simmons 2005, pp. 564-68, 574). In finding that society views 16- and 17-year-olds categorically less culpable than the average criminal and not "among the worst offenders" (Roper v. Simmons 2005, pp. 569-70), the Court looked to objective indicia reflecting consensus rejecting the juvenile death penalty in the majority of the states (including states completely rejecting the death penalty as a sanctioned punishment) (Roper v. Simmons 2005, pp. 574-75); the infrequency of its use where it remained on the legislative books (Roper v. Simmons 2005, pp. 564-65); and the consistency of the direction of change towards abolition of the practice (Roper v. Simmons 2005, pp. 566-67). Applying the second step in categorical analysis, and guided by its own understanding and interpretation of the Eighth Amendment, the *Roper* majority specifically addressed and rejected arguments by Warden Roper and the dissenters including those favoring an individual assessment approach (Roper v. Simmons 2005, p. 572). The *Roper* majority recognized the existence of "[t]hree general differences between juveniles under 18 and adults demonstrat[ing] that juvenile offenders cannot with reliability be classified among the worst offenders" (Roper v. Simmons 2005, p. 569).

> First, 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. These qualities often result in impetuous and ill-considered actions and decisions (Roper v. Simmons 2005, p. 569).

The second area of difference noted by the Court was that "juveniles are more vulnerable or susceptible to negative influences and outside pressures, including peer pressure" (Roper v. Simmons 2005, p. 569). "The third broad difference is that the character of a juvenile is not as well formed as that of an adult. The personality traits of juveniles are more transitory, less fixed" (Roper v. Simmons 2005, p. 570). The *Roper* Court concluded that,

> [t]hese differences render suspect any conclusion that a juvenile falls among the worst offenders. The susceptibility of juveniles to immature and irresponsible behavior means their irresponsible conduct is not as morally reprehensible as that of an adult (Roper v. Simmons 2005, p. 570, quoting Thompson v. Oklahoma 1988, p. 835).

Based upon the Court's examination and consideration of the characteristics that 16- and 17-year-olds shared as a class—characteristics recognized to "diminish[] culpability" (Roper v. Simmons 2005, p. 571)—the Court concluded that "it is evident that the penological justifications for the death penalty apply to them with lesser force than to adults" (Roper v. Simmons 2005, p. 571). Specifically, the majority drew a parallel to its analysis in *Atkins* (relative to the class of persons with intellectual disability), noting that "the case of retribution is not as strong with a minor as with an adult" because "[r]etribution is not proportional if the law's most severe penalty is imposed on one whose culpability or blameworthiness is diminished, to a substantial degree, by reason of youth and immaturity" (Roper v. Simmons 2005, p. 571). The *Roper* majority further found that deterrence could not suffice to justify the death penalty for 16- and 17-year-olds, noting that "the likelihood that the teenage offender has made the kind of cost-benefit analysis that attaches any weight to the possibility of execution is so remote as to be virtually nonexistent." (Roper v. Simmons 2005, p. 572). The Court concluded that "the absence of evidence of deterrent effect is of special concern because the same characteristics that render juveniles less culpable than adults suggest as well that juveniles will be less susceptible to deterrence" (Roper v. Simmons 2005, p. 571).

A categorical approach was necessary to vindicate the underlying principle that the death penalty be reserved for a narrow category of crimes and those reliably classified as among the worst offenders (Roper v. Simmons 2005, pp. 568-69). Based on information subject to general understanding and which then-existing science tended to confirm, the *Roper* majority found that 16- and 17-year-olds were akin to other classes of offenders to whom the death penalty may not be applied due to their culpability-diminishing characteristics, specifically, juveniles under 16, the insane, and the intellectually disabled (Roper v. Simmons 2005, pp. 569-70). The Court noted the well-established understanding of the differences between 16- and 17-year-olds and adults that diminished the relative culpability of juvenile offenders (Roper v. Simmons 2005, pp. 572-73). That diminished culpability supported the conclusion that 16- and 17-year-olds should be treated as a class, just as were juveniles under 16, the insane, and the intellectually disabled (Roper v. Simmons 2005, pp. 572-73). In doing so, the *Roper* majority found an individual assessment approach deficient in recognizing and applying conscientiously the culpability-diminishing characteristics attendant youth, especially given youthful offenders not only sharing those characteristics but further sharing capacity for and likelihood of maturation and change (Roper v. Simmons 2005, p. 571). The Court noted, after all, that it is a relatively small proportion of adolescents whose problem behavior persists into adulthood as compared with those who were but experiencing the transient attributes of youth that may dominate in younger years but can and often does subside (Roper v. Simmons 2005, p. 570). Absent a categorical approach to exempt the class of 16- and 17-year-olds, "[a]n unacceptable likelihood exists that the brutality or cold-blooded nature of any particular crime could overpower mitigating arguments based on youth as a matter of course" (Roper v. Simmons 2005, p. 573). In other words, the mitigating quality of youth would, effectively, be extirpated by virtue of the details of the crime alone, and "[i]n some cases a defendant's youth may even be counted against him" (Roper v. Simmons 2005, p. 573), as was argued by the prosecutor in Simmons' case. Thus, the Court assessed the risk as being too great that the death penalty would be imposed despite the diminished culpability attendant youth (Roper v. Simmons 2005, pp. 572-73). Since *Roper*, the U.S. Supreme Court has confirmed the propriety and necessity of categorical analysis in such instances because individual assessment—either as to the gravity of the crime or the characteristics of the particular offender—"does not advance the analysis" Graham v. Florida 2010, p. 61), and categorical bans address the constitutional problem of disproportionality where there is a mismatch between the culpability of class of offenders and the severity of a penalty (Miller v. Alabama 2012, pp. 572-73).

The Role of Science Relative to Culpability and the Heightened Relevance of Current and Accurate Science to Evolving Standards Analysis Post-*Roper*

"Science cannot, of course, gauge moral culpability. Scientists can, however, shed light on certain measurable attributes that the law has long treated as highly relevant to culpability" (Brief of the American Medical Association 2004). "In the absence of good social and behavioral science, legislators [and courts] were free to make assumptions" that adolescents are no different from adults in the capacities that comprise maturity and hence culpability (Fagan 2008, p. 92). The existence of sound, relevant science, however, changes the body of information for which the legislators and courts must account in their decision-making. Moreover, where there exists a current scientific consensus as to shared culpability diminishing characteristics of a class, e.g., youth, the decisions of legislators and courts must be informed by, and not disregard, that consensus evidence.

In *Stanford v. Kentucky*, the Court explicitly rejected substituting its "belief in the scientific evidence for the society's apparent skepticism" (Stanford v. Kentucky 1989, p. 378). The *Roper* Court, however, provided a role for then-current science in the context of the second step of its Eighth Amendment proportionality analysis (bringing its own judgment to bear). In examining culpability characteristics of 16- and 17-year-olds as a class, the *Roper* Court noted the general lay understanding of the three categories of characteristics or signature qualities of youth that reflected diminished culpability (Roper v. Simmons 2005, pp. 569-70), characterizing that understanding as information "any parent" would know (Roper v. Simmons 2005, p. 569), and which was "too marked and well understood" (Roper v. Simmons 2005, pp. 572-73). Thus, the plain words used by the *Roper* Court to describe the culpability diminishing characteristics of 16- and 17-year-olds communicated general agreement ("as any parent knows" and "too marked and well understood") based on lay understanding. The Court noted that in *Thompson* it had similarly "recognized the import of these characteristics with respect to juveniles under 16, and relied on them" (Roper v. Simmons 2005, p. 570). The Court then correlated those characteristics with the science and studies presented to it by Simmons and amici, which it said "tend to confirm" the general lay understanding (Roper v. Simmons 2005, p. 569). Thus, the *Roper* Court relied on then-current science to confirm what it deemed well understood: 16- and 17-year-olds as a class were of diminished culpability (Roper v. Simmons 2005, p. 571). Finally, the *Roper* Court again looked to the science to confirm that the decision prohibiting the death penalty for 16- and 17-year-olds was to be categorical rather than one based on individual assessment. In doing so, it noted that without a categorical exemption from the death penalty, the risk that the death penalty would be imposed despite the diminished culpability attendant youth was too great, and hence would constitute a disproportionate punishment.

Nine years after *Roper*, the U.S. Supreme Court affirmed the importance courts relying upon current and accurate science. In Hall v. Florida—relative to intellectual disability in a capital case context—the Court explained that while a prisoner's intellectual disability may not change, the medical standards used to assess that disability constantly evolve as the scientific community's understanding grows. The *Hall* Court contrasted its reliance on "the most recent (and still current) versions" of leading diagnostic manuals with the Florida court's disregard of established medical practice through its outdated (and sole) reliance on an IQ as final and conclusive evidence of a defendant's intellectual capacity (Hall v. Florida 2014, pp. 712-13). As the Court later described, the holding in *Hall* made clear that "[e]ven if the views of medical experts do not 'dictate' a court's intellectual-disability determination," the court's "determination must be informed by the medical community's diagnostic framework" (Moore v. Texas 2017, p. 1048).

In 2017, the U.S. Supreme Court more explicitly cautioned state and federal courts against diminishing the force of and/or disregarding current medical standards or the medical community's consensus (Moore v. Texas 2017, p. 1049), noting that those current standards "[r]eflect improved understanding over time" (Moore v. Texas 2017, p. 1053). *Moore I*—also relative to intellectual disability in a capital case context—arose from the Texas appeal court's adherence to superseded medical and other non-clinical standards (court-created "*Briseno* factors"). The Court noted that Texas could not,

> satisfactorily explain why it applies current medical standards for diagnosing intellectual disability in other contexts, yet clings to superseded standards when an individual's life is at stake (Moore v. Texas 2017, p. 1052).

State and federal courts should recognize their limited scientific knowledge and must not diminish the force of and/or disregard current medical standards or the medical community's consensus because while "[s]tates have some flexibility" they do not have "unfettered discretion" (Moore v. Texas 2017, p. 1053). If states were to have complete autonomy to define intellectual disability, the protections embodied in *Atkins*—prohibiting capital punishment for those with intellectual disability—could become a nullity, and the Eighth Amendment's protection of human dignity would not become a reality (Moore v. Texas 2017, p. 1053). Thus, the "medical community's current standards supply one constraint on States' leeway in this area" (Moore v. Texas 2017, p. 1053). According to the *Moore I* Court, the Texas appeals court failed to adequately inform itself of the medical community's current diagnostic framework when it applied the superseded medical and non-clinical (court-created) standards (Moore v. Texas 2017, p. 1053). The Texas court's adoption and use of those standards—not being aligned with the medical community's information—created an unacceptable risk that persons with intellectual disability would be sentenced to death and executed (Moore v. Texas 2017, p. 1051). Two years later, the U.S. Supreme Court affirmed its commitment to prevailing medical practice and the scientific community's diagnostic framework over "lay perceptions" and "lay stereotypes" (Moore v. Texas 2019, p. 669). The Court again reversed the Texas appeal court's finding that Moore was not intellectually disabled, concluding that,

> [w]e have found in its opinion too many instances in which, with small variations, it repeats the analysis we previously found wanting, and these same parts are critical to its ultimate conclusion (Moore v. Texas 2019, p. 670).

The Texas appeals court's actions (rather than its words) demonstrated that the court-created factors continued to "pervasively infect the appeals courts' analysis" (Moore v. Texas 2019, pp. 670-72). The *Moore II* Court directed Texas courts not continue to elevate lay stereotypes over prevailing medical practice and the scientific community's diagnostic framework (Moore v. Texas 2019, p. 672).

In summary, as of *Roper*, the science tended to confirm the Court's own and society's general understanding. Since *Roper*, the U.S. Supreme Court has consistently recognized, been informed by, and applied the ever-growing body of current research in science and social science identifying and addressing the culpability-diminishing attributes of youth (Miller v. Alabama 2012, p. 471, citing Graham v. Florida 2010, p. 68). Indeed, the Court has observed that the "evidence presented to us in these cases indicates that the science and social science supporting *Roper's* and *Graham's* conclusions have become even stronger" (Miller v. Alabama 2012, p. 472 n.5). The Court's descriptions of the science and social science it recognized and by which it was informed—"numerous studies," "it is increasingly clear," and "body of research"—make clear that science does not extend to that which is isolated and/or on the fringes. Rather, it extends to science and social science which is sound and methodologically reliable, constitute standards, and reflect consensus. Thus, as collective judgment within the scientific community approaches consensus (or established standards), the Court has emphasized the need that judicial determinations be informed by and accurately take into account that scientific consensus evidence in Eighth Amendment evolving standards determinations. In contrast, to the extent that the science is not sound, methodologically reliable, and reflecting consensus, courts remain free to disregard and/or afford that science lesser weight.

The significance of this is clear. The courts must look to the scientific community's current standards and/or consensus to assist in their determination whether the penological goals of the death penalty are measurably served by imposing it on a particular class of individuals. In making that assessment, courts look to the scientific community's understanding of the shared, signature characteristics of those within the class, and determine whether there exists a mismatch between class culpability and the severity of the death penalty. Absent presentation of evidence of scientific standards and/or consensus—and consistent accompanying narrative—courts are deprived of current and accurate understanding of shared characteristics bearing on culpability, limiting their ability to assess the existence of any mismatch, and distorting judicial determinations. Moreover, failure to present evidence of scientific consensus engenders confusion in both the process and the substantive evidence relied upon in any judicial (or legislative) determination of the issues, creating opportunity for, and the likelihood of, judgments inapposite to scientific standards and/or consensus.

What *Roper* Did Not Decide

As noted, "[i]n *Roper*, the Court tailored its analysis of juvenile characteristics to the specific question whether juvenile offenders could constitutionally be subject to capital punishment" (*Graham v. Florida*, 560 U.S. at 89 (Roberts, C.J., concurring in the judgment)). Thus, the question at issue in *Roper* and as briefed by the parties did not address capital punishment as to the late adolescent class, specifically, those 18, 19, and/or 20 years at the time of the commission of the crimes. Similarly, the *Roper* Court was presented with neither objective indicia of societal standards nor scientific evidence relative to those within the late adolescent class, much less evidence of scientific consensus relative to that class. Despite the precise question before the *Roper* Court—capital punishment for 16- and 17-year-olds—the predominant majority of the lower courts currently deny claims to extend application of the *Roper* analytical framework to current objective indicia and science to the late adolescent class. Those courts do so based on a misinterpretation of the facts presented and issue decided in *Roper*, denying based on a belief that *Roper* made a decision to limit the age-based prohibition against capital punishment to offenders under 18, decided against a prohibition for those 18 and older, and/or that the issue of application of the *Roper* framework to the late adolescent class should be considered only by the U.S. Supreme Court (see, e.g., State v. Garcell 2009, pp. 645-46; Mitchell v. State, 2010; Schoenwetter v. State 2014, p. 561; United States v. Tsarnaev 2020, pp. 96-97; and Hairston v. State 2020, slip op. p. 9). That the predominant majority of the lower courts hold along these lines, however, does not demonstrate the correctness of their rulings (see, e.g., Chaidez v. United States 2013, pp. 350-51 (noting that near unanimity in the lower courts on an issue does not equate to the correctness of those lower rulings)), nor does it reflect current societal standards and current scientific consensus.

Given that all of the Court's *Roper* opinions—majority, concurrences, and dissents—relied on and utilized data circa 2003-2005, neither in *Roper* nor in any other case has the U.S. Supreme Court directly addressed whether, as of 2021 (and based on the scientific evidence and current objective indicia of society's standards regarding late adolescence), national consensus exists against capital punishment for the late adolescent class. Neither in *Roper* nor in any other case, has the U.S. Supreme Court addressed whether those in the late adolescent class possess (or do not possess) diminished culpability and/or whether the penological goals of retribution and deterrence are or are not measurably served by imposing and carrying out the death penalty on that class. Similarly, neither in *Roper* nor in any other case has the U.S. Supreme Court addressed whether there is a mismatch between culpability factors and the penological goals of capital punishment relative to the late adolescent class. If that mismatch exists, no

court has determined that there is or is not a need for the exemption of those in the late adolescent class from capital punishment. Moreover, neither in *Roper* nor in any other case has the U.S. Supreme Court addressed whether a rational basis exists to deny those within the late adolescent class the constitutional protections *Roper* afforded the class of 16- and 17-year-olds. No justice of the Court has asserted these issues already decided.

Current Objective Indicia of Societal Standards Demonstrate a Consistency of Direction of Change—If Not Consensus—Disfavoring Capital Punishment for the Late Adolescent Class

Application of the U.S. Supreme Court's analytical framework to current objective indicia strongly supports the conclusion that current societal consensus favors a ban on the death penalty for 18-, 19-, and 20-year-olds. "[O]bjective indicia of society's standards [are] expressed in legislative enactments and state practice" (Roper v. Simmons 2005, p. 563), and reflect the public attitude as a whole towards imposition of the death penalty for those in the late adolescent class (*Cf.*, Gregg v. Georgia 1976, p. 173). Given that "a State's decision to bar the death penalty altogether of necessity demonstrates a judgment that the death penalty is inappropriate for all offenders, including [late adolescents]" (*Cf.*, Roper v. Simmons 2005, p. 574), the objective indica reflect that there are now 22 states that have "rejected the death penalty altogether" (*Cf.*, Roper v. Simmons 2005, p. 564). This represents the largest number of abolition states in over 100 years (Death Penalty Information Center 2021) and ten more than at the time of *Roper*. Additionally, as of 2021, there are three states with execution moratoria, specifically, Oregon, Pennsylvania, and California, whose combined post-*Furman* number of executions of those in the late adolescent class is one execution. Given their moratoria and lack of executions in decades, U.S. Supreme Court precedent dictates that those three states fall on the abolition side of the ledger, bringing the total number of abolition states to 25 (*Cf.*, Hall v. Florida 2014, p. 716). Table 1 identifies the abolition states circa *Roper*, post-*Roper*, and by virtue of their execution moratoria.

Additionally, because the acceptability of the death penalty is measured not by its availability but by its use (Furman v. Georgia 1972, Brennan, J., concurring), and consistent with the U.S. Supreme Court's treatment of similar indicia, eleven of the 25 states that legislatively and/or constitutionally authorize the death penalty, including for late adolescents, "should not be treated as if they have expressed the view that the [execution of those within the late adolescent class] is appropriate" solely by virtue of the authorizing legislation (*Cf.*, Graham v. Florida 2010, p. 67). Specifically, there is little need to pursue legislation barring the execution of those within the late adolescent class in eight of those 25 states as none of those states has executed anyone in the late adolescent class in nearly 50 years. Further, five of those states have not executed anyone within the late adolescent class in the past twenty years. Table 2 identifies those states.

No support for capital punishment of those in the late adolescent class can be inferred from the legislative inertia within those states as they have not had any reason to legislate against late adolescent executions which have not occurred (*Cf.*, Atkins v. Virginia 2002, p. 316). Based on this objective analysis—applying the framework and using types and comparisons of indicia relied upon by the U.S. Supreme Court—36 states fall on the side of the ledger opposing and/or not supporting execution of those within the late adolescent class. In contrast, only fourteen states are not opposed to such a punishment of the late adolescent class. Thus, consistency of the direction of change among American society as a whole disfavors capital punishment for those in the late adolescent class.

The behavior of juries is another metric relative to the acceptability of capital punishment in current American society (Thompson v. Oklahoma 1988, p. 831). Of a total of approximately 390 prisoners currently under sentence of death for crimes committed when they were 18, 19, or 20 years of age, four states—Alabama, California, Florida, and Texas—account for 235 of those prisoners, or approximately 60%. Indeed, the vast majority of death sentences imposed on late adolescents since *Roper* has been concentrated in four states: Alabama, California, Florida, and Texas. As Table 3 demonstrates, those states accounted for 83 of the 134 total death sentences imposed on the late adolescent class post-*Roper*, while the remaining 51 death sentences imposed on late adolescents post-*Roper* were sparsely distributed among nineteen jurisdictions.

Similarly informing the consideration whether capital punishment is regarded as unacceptable and/or disfavored in our society, are the number of executions within the class (Kennedy v. Louisiana 2008, p. 433). As of 2021, post-*Roper* executions of late adolescents (pursuant to death sentences imposed pre-*Roper*) were concentrated in four states, specifically, Alabama, Georgia, Ohio, and Texas. As Table 4 demonstrates, those four states accounted for 85 of the 109 late adolescent executions, with the remaining 24 executions carried out in eleven states. One cannot rationally nor objectively conclude that those four states constitute a consensus of modern American society as a whole, reflecting societal standards of the combined sovereign states.

Table 1 Abolition states circa *Roper*, post-*Roper*, and by virtue of their execution moratoria

Abolition states circa *Roper*	States abolishing the death penalty since *Roper*	States counted as abolition states due to execution moratoria
Alaska	New York (2007)	Oregon (2011)
Hawaii	New Jersey (2007)	Pennsylvania (2015)
Iowa	New Mexico (2009)	California (2019)
Maine	Illinois (2011)	
Massachusetts	Connecticut (2012)	
Michigan	Maryland (2013)	
Minnesota	Delaware (2016)	
North Dakota	Washington (2018)	
Rhode Island	New Hampshire (2019)	
Vermont	Colorado (2020)	
West Virginia		
Wisconsin		

At the time of *Roper*, the twelve states noted in the left-hand column, above, rejected the death penalty altogether. Since *Roper*, the ten states noted in the middle column, above, have abolished the death penalty. Added to the combined 22 states that have rejected the death penalty altogether are three states with execution moratoria, for a combined 25 states on the abolition side of the ledger. Notably, in 2021, legislation to abolish the death penalty was introduced in the states of Virginia and South Dakota

Confirming the existence of national consensus disfavoring capital punishment for the late adolescent class, the evidence against that punishment for 18-, 19-, and 20-year-olds is similar, and in some respects parallel to or exceeds, that which the U.S. Supreme Court held sufficient to demonstrate a national consensus against the death penalty for the intellectually disabled (Atkins v. Virginia 2002, pp. 313-15), 16- and 17-year-olds (Roper v. Simmons 2005, p. 564), and nonhomicide juvenile offenders (Graham v. Florida 2010, p. 62). Specifically, underlying the 2002 decision relative to those within the class of intellectually disabled, the then-current record before the *Atkins* Court demonstrated that 30 states prohibited the death penalty for the intellectually disabled, specifically, 12 states had abandoned the death penalty altogether, and 18 states maintained the death penalty but excluded from its reach the intellectually disabled. Based upon similar analysis, underlying the 2005 decision relative to the class of 16- and 17-year-olds, the then-current record before the *Roper* Court demonstrated that "30 States prohibit the juvenile death penalty, comprising 12 that have rejected the death penalty altogether and 18 that maintain it but, by express provision or judicial interpretation, exclude juveniles from its reach" (Roper v. Simmons 2005, p. 564). Similarly, underlying the 2010 decision relative to those within the class of nonhomicide juvenile offenders, the then-current record before the *Graham* Court revealed that 37 states permitted sentences of life without parole for nonhomicide juvenile offenders, with the Court emphasizing, however, the small number of states responsible for

Table 2 States which have not executed anyone within the late adolescent class in the past twenty years

States not executing a prisoner within the late adolescent class in approximately 50 years	States not executing a prisoner within the late adolescent class in the last 20 years
Idaho	Arizona
Kansas	Louisiana
Kentucky	Nebraska
Montana	Nevada
Tennessee	Utah
Wyoming	California[†]
Oregon[†]	
Pennsylvania[†]	

States falling on the abolition side of the ledger by virtue of lack of recency in late adolescent class executions

[†] Oregon, Pennsylvania, and California are already included in the tally of abolition states given their formal execution moratoria status. Thus, to avoid double-counting, they are excluded from the counting of states based on lack of recency in late adolescent class executions

Table 3 Total death sentences imposed on the late adolescent class post-*Roper* and on late adolescents post-*Roper* which were sparsely distributed among nineteen jurisdictions

States imposing death sentences on prisoners within the late adolescent class post-*Roper*	Relevant death sentences imposed post-*Roper*
Alabama	17
Arizona	5
Arkansas	1
California	31
Colorado	2
Connecticut	2
Federal Jurisdiction	6
Florida	20
Georgia	2
Kentucky	1
Louisiana	2
Missouri	1
Mississippi	1
Nevada	3
North Carolina	6
Ohio	5
Oklahoma	5
Oregon	1
Pennsylvania	5
Tennessee	1
Texas	15
Virginia	1
Washington	1

Data taken from *Guzek v. Kelly*, 2019

Table 4 Late adolescent executions, with the remaining 24 executions carried out in eleven states

States executing prisoners within the late adolescent class post-*Roper*	Relevant executions carried out post-*Roper*
Alabama	8
Arkansas	1
Delaware	1
Federal Jurisdiction	2
Florida	3
Georgia	11
Indiana	3
Missouri	1
Mississippi	2
North Carolina	1
Ohio	8
Oklahoma	5
South Carolina	1
South Dakota	1
Texas	58
Virginia	5

Data taken from *Guzek v. Kelly*, 2019

the majority of such sentences (Graham v. Florida 2010, p. 64). Finally, as demonstrated by the U.S. Supreme Court's categorical exemption analysis, the evidence as to current societal consensus may be supplemented and/or confirmed by the "consistent direction of the change" disfavoring capital punishment of 18-, 19-, and 20-year-olds (*Cf.*, Roper v. Simmons 2005, p. 566, noting use of consistency of direction of change). In short, and as demonstrated by objective indicia of societal standards as a whole, there is now a national consensus against imposing the death penalty on the late adolescent class.

In addition to legislative and state practice indicia relative to the sentencing practice, another indication of societal standards relative to classes of youth, stemming from their peculiar vulnerability, and their inability to make critical decisions in an informed, mature manner, are limitations on their rights and privileges (Bellotti v. Baird 1979, p. 634). The *Roper* Court noted that "[t]he reason why juveniles are not trusted with the privileges and responsibilities of an adult also explain why their irresponsible conduct is not as morally reprehensible as that of an adult" (Roper v. Simmons 2005, p. 561). It specifically recognized that, "almost every State prohibits those under 18 years of age from voting, serving on juries, or marrying without parental consent" (Roper v. Simmons 2005, p. 569). The Court relied upon those observations in concluding that the "age of 18 is the point where society draws the line for many purposes between childhood and adulthood" (Roper v. Simmons 2005, p. 569), and against that backdrop concluded that 18 is "the age at which the line for death-eligibility ought to rest" (Roper v. Simmons 2005, p. 574). Just as the *Roper* Court noted the different legislative and regulatory treatment of 16- and 17-year-olds given their comparative immaturity and irresponsibility, current societal line-drawing reflects a shift upwards since *Roper*, extending through the late adolescent years given their comparative immaturity and irresponsibility as well as their peculiar vulnerability.

In recognizing evolving standards of decency, the U.S. Supreme Court has embraced the adage that society changes and knowledge accumulates (Graham v. Florida 2010, p. 85). Society has changed and knowledge has accumulated in the 16 years since *Roper* was decided (the same time period between the 1989 denial of a categorical exemption for the 16- and 17-year-old class in *Stanford v. Kentucky's* and *Roper's* 2005 grant of a categorical exemption for the same class). Reflecting advancements in the scientific understanding of the brain and behavioral development characteristics of all adolescents—including late adolescents—and consistent with the proposition that society should place limitations on opportunities for immature judgment commensurate with youth to have harmful consequences (Steinberg 2019), state and federal legislatures and regulators have created and implemented greater restrictions on and protections for late adolescents in a wide array of contexts. The legislation and regulations are categorical; they do not use an individualized assessment approach that might permit an individual below the designated age to engage in the prohibited behavior. These indicia of society's standards—state and federal limitations on opportunities for immature judgment (commensurate with youth) to have harmful consequences, and greater restrictions on and protections for late adolescents, in a wide array of contexts—necessitate that the line of demarcation for death-eligibility be redrawn to exclude those 18, 19, and 20 years of age, so as to ensure categorically that there is no longer a mismatch between the diminished culpability of those within the late adolescent class and the irrevocable severity of the death penalty. For more detailed analysis of state and federal legislative and regulatory enactments demonstrating the consistency of the direction of change in favor of protecting the late adolescent class (and/or protecting society as a whole against their vulnerabilities) given the brain and behavioral development characteristics of the late adolescent class, see Meggitt within this issue.

The existence of a national consensus disfavoring capital punishment for those in the late adolescent class is similarly confirmed by the positions of respected organizations, including those of the American Bar Association (ABA). In 2018, the ABA House of Delegates adopted Resolution 111, urging "each jurisdiction that imposes capital punishment to prohibit the imposition of a death sentence on or execution of any individual who was 21 years old or younger at the time of the offense." The organization did so, asserting the necessity of a categorical exemption given "the overwhelming legal, scientific, and societal changes of the last three decades" (American Bar Association 2018, p. 3). Joining the ABA is a growing body of professional organizations with germane expertise that have adopted and/or are in the process of adopting policy statements or resolutions opposing the death penalty for 18-, 19-, and 20-year-olds. That growing body reflects even broader societal and professional consensus given its consistence with the objective indicia noted above.

Finally, polling data are additional indicia bearing upon the existence of societal consensus. According to the annual 2020 Gallup poll on Americans' attitudes on capital punishment, and confirming societal consensus disfavoring capital punishment including that punishment for the late adolescent class,

> Americans' support for the death penalty continues to be lower than at any point in nearly five decades. For a fourth consecutive year, fewer than six in 10 Americans (55%) are in favor of the death penalty for convicted murderers. Death penalty support has not been lower since 1972, when 50% were in favor Gallup (2019).

Regarding the same Gallup polling, the Death Penalty Information Center noted that "[p]ublic support for the death

penalty is at its lowest level in a half-century, with opposition higher than any time since 1966" (Death Penalty Information Center 2020).

The objective indicia reflecting societal standards as a whole relative to capital punishment of the late adolescent class reflect American societal consensus not only opposing and/or disfavoring that punishment, but definitively demonstrating consistency of the direction of change against the imposition and carrying out of death sentences against the late adolescent class.

As Informed by Current Science and as Compared to 17-Year-Olds, the Mismatch Between Culpability and Susceptibility to Deterrence is Materially Indistinguishable from the Mismatch Existing Relative to the Late Adolescent Class

Approximately 16 years ago, the *Roper* Court drew the death eligibility line at 18 years of age, finding a mismatch between the diminished culpability of 16- and 17-year-olds and the severity of the death penalty. That mismatch necessitated a categorical exemption from the death penalty for those who were 16 and 17 years of age at the time of the commission of their capital crimes. As of *Roper*, the U.S. Supreme Court did not have before it either a question presented regarding the death eligibility of the late adolescent class nor evidence of current societal indicia or relevant science regarding late adolescents. What does the science relative to late adolescent brain and behavioral development contribute to an understanding of culpability determinations as to that class? While the science of late adolescent brain and behavioral development is treated in more detail in other chapters within this issue, offered here is a summary of the scientific evidence presented in an October, 2019, evidentiary hearing in one capital case, *Guzek v. Kelly*. Transcripts from which the following summary is constructed are available from the author.

Steinberg testified to his expert opinion—about which he was "very confident"—that the three aspects of immaturity identified by the *Roper* Court apply to the late adolescent class (*Guzek v. Kelly* 2019, p. 65), on file with author). Steinberg also noted the legally relevant ways in which late adolescents are less mature than their older adult counterparts and concluded that "there is no scientific evidence to suggest that a meaningful psychological or neurobiological distinction can be drawn between individuals who are nearly 18 years old and those who are between 18 and 21" (Declaration of Steinberg in *Guzek v. Kelly* 2019, pp. 11-18 (on file with author)). Steinberg made clear that in considering the age after which very little significant maturation in the brain occurs, no credible neuroscientist would say that brain maturation is complete by age 18 (*Guzek*, p. 64). Further, he testified that there are no reputable scientists that would hold the age beyond which there isn't any more significant developmental maturation prior to the age of 21 (*Guzek*, p. 64).

Bigler offered Geschwind's observation that "every behavior has an anatomy" (Geschwind 1975) as an organizing principle. Bigler's testimony included his discussion of results of a study regarding white matter maturation, which he described as reflecting a continuous slope and showing "not much difference" between a 17-year-old versus an 18- to 20-year-old (*Guzek*, p. 162). Given these and other consistent findings, Bigler testified that he was confident that the science cannot distinguish the areas of maturation in the brain identified in *Roper* as relates to a 17-year-old versus an 18-, 19-, or 20-year-old (*Guzek*, p. 191). Bigler agreed with Steinberg's opinions regarding brain maturation and offered his own opinion that the normal developmental trajectory of brain maturation continues through and peaks "around 20 years of age" (*Guzek*, p. 107). As one of many supports for that opinion, Bigler cited a 2016 study by Somerville (Somerville 2016) demonstrating maturation not reaching asymptote until after age 20; thus, the results as to 17-year-olds were not distinguishable from those of an 18-, 19-, or 20-year-olds in the areas studied—areas that were consistent with the areas at issue in *Roper* (*Guzek*, p. 182,). Bigler summarized his consensus testimony about "neuroimaging providing a window into brain structure and function," and testified to an overall consensus conclusion based on the scientific evidence, of which he was "absolutely confident," that:

> …Neuroimaging reflects the neural, biological basis for behavior and cognition. There are multiple quantitative methods for scientifically measuring brain development and all show maturation extends beyond 20. Brain maturation underlies behavioral maturation. Those two go hand in hand[.]

> [T]his leads me to the conclusion that empirically demonstrated, quantitative neuroimaging accurately measures brain developmental changes, which show that maturation extends to and beyond age 20 (*Guzek*, p. 189).

Bigler was confident of his opinion of scientific consensus as to these findings; he did not believe there exists any dispute among reputable scientists that brain maturation (in the areas he tied to the three general areas discussed in *Roper*) continues up to age 20 (*Guzek*, p. 190). And, while Bigler agreed with Steinberg's opinion that brain maturation extends into the mid-twenties, he testified that solid consensus as to extending "to and beyond age 20" "may not be as strong for that

extended range[,]" meaning, as one moves beyond age 20 there is less agreement among reputable scientists (*Guzek*, p. 190).

Gur, while recognizing that, on a continuum, there is some distinction between the 17-year-olds at issue in *Roper* and 18-year-olds, emphasized that in none of the areas of the brain that subserve the three general categories of characteristics cited by the *Roper* Court is the brain mature by age 18 (*Guzek*, p. 280). In providing this opinion, Gur identified several of those areas of the brain and their associated fundamental developmental processes continuing from age 17 through the early twenties: white matter and myelination, gray matter and pruning, cerebral blood flow, and intracranial volume (*Guzek*, p. 280). Gur agreed with Bigler's use of the observation, "every behavior has an anatomy" as a valid organizing principle. In addition to other important regions, he cited the developmental trajectory of cerebral blood flow measurements as an "area of the brain" subserving the three general categories of characteristics cited by the *Roper* Court, noting developmental trajectory does not stop at age 18 (*Guzek*, pp. 253-54). Gur emphasized that, based on the scientific literature, developmental trajectory reflects a "process continu[-ing] into the early twenties and does not stop at 18" (*Guzek*, p. 253). This developmental trajectory was demonstrated in the post-*Roper* [Philadelphia Cohort] study overseen by Gur, a study that was one of the largest longitudinal studies with findings as of the time of the October, 2019, hearing. Gur testified that the developmental trajectory of cerebral blood flow measurements, especially in the late adolescent years, is observed not only in the organ of the brain itself but also reflected in behavior (*Guzek*, p. 255). More specifically, and while "[a]dolescents have fully-developed intellectual capacities" (*Guzek*, p. 255), those intellectual capacities contrast with impulsivity, poor decision-making, and the other characteristics noted by the *Roper* Court, and which are tested by way of behavioral tests in conjunction with contemporaneous imaging (*Guzek*, pp. 255-59). Thus, the developmental trajectory of cerebral blood flow measurements as reflected in behavior provides one real-life example of the "every behavior has an anatomy" organizing principle.

Gur summarized as follows:

> [T]hese are the main conclusions from the imaging and neurocognitive studies. Myelination as measured by white matter volume and integrity is confirmed as a major index of brain maturation. They also discuss the importance of axonal pruning reflected in reduced gray matter volume and increased gray matter density. And it is highlighted as reflecting neuronal maturation, and both maturation and pruning culminate in the early part of the third decade of life. Among the cortical regions, the frontal cortex, which is responsible for executive function, matures last; and, correspondingly, performance of executive control tasks shows protracted development that continues into the twenties; and that evening out of abilities occurs during transition from childhood to adolescence, and that is followed by specialization that continues into at least 20 years (*Guzek*, pp. 276-77).

McCaffrey, for himself and on behalf of the American Academy of Pediatric Neuropsychology, testified that based on the science relative to the three general areas of behaviors noted by the *Roper* Court, there is no rational scientific basis to distinguish the typical brain development of a 17-year-old from those in the late adolescent class, an opinion about which he was "extremely" confident (*Guzek*, p. 508). McCaffrey additionally agreed that brain development indicates ongoing maturation of the key decision-making areas of the brain through at least 20 years of age (*Guzek*, p. 497). McCaffrey explained that the data reflect that 17-year-olds, in terms of, e.g., their function and brain development, results on formal neuropsychological testing, imaging, and myelination, cannot be differentiated from 18-, 19- and 20-year-olds (*Guzek*, p. 498). McCaffrey noted the consistency between the scientific consensus opinions offered during the October, 2019, hearing and the content in the National Institutes of Mental Health, 2011 pamphlet, *The Teen Brain: Still Under Construction*. He cited that consistency as an indication not only as to the strength of those consensus opinions, but the great confidence one should have in those opinions given the reputation of the NIMH (*Guzek*, p. 499).

The testimony of Horton focused on executive functioning. Horton explained that executive functioning is a construct subserving the three general areas of characteristics identified and described by the *Roper* Court (*Guzek*, p. 416). As reflected in functional neuropsychological test results drawn from peer-reviewed studies, Horton described executive functions as those associated with control of transient rashness, proclivity for risk-taking, the will and the ability to assess consequences (especially long-term consequences), and the ability to change fundamentally the outward expression of one's so-called character, including the ability to resist improper social and peer influences (Declaration of Horton in *Guzek v. Kelly* 2019, p. 39) (on file with author). In short, he characterized it as the ability to think about adult consequences and use feedback in rational decision making, all of which are related to having a mature brain" (*Guzek*, pp. 408-09). Horton pointed out that a number of brain systems have to work together to perform decision-making (*Guzek*, pp. 407-08), and the brain networks that underlie executive functioning subserve it (*Guzek*, p. 418). Ultimately, Horton provided a consensus opinion, based on peer-reviewed scientific literature relative to executive functioning, that the developmental trajectory of executive functioning follows the maturational trajectory of the brain (*Guzek*, p. 419), and that "brain maturation does not complete until sometime after the age of 20 years" (*Guzek*, pp. 408-09).

Given the foregoing, there is scientific consensus that the brains of those within the late adolescent class are not fully developed, structurally and developmentally—especially in the areas of the brain associated with self-control and self-regulation including impulsivity and risky decision-making, considering and responding to peer pressure, and in solidifying character formation—until at least 20 years of age. Additionally, there is a scientific consensus that the structural and developmental maturity of the brains of those in the late adolescent class is materially indistinguishable from that of 17-year-olds as a class in the regions or systems of the brain subserving the three general categories of behavioral characteristics observed and deemed relevant to culpability by the *Roper* Court. A court's failure to recognize these material indistinctions as between the 17- year-old class versus the late adolescent class would reflect a failure to be informed by the scientific community's standards, diminishing and diluting the science.

Just as a categorical exemption was necessary relative to the class of 16- and 17-year-olds at issue in *Roper*, the same holds true with respect to the late adolescent class. This is so given the same regions or systems of the brain subserving the three general areas of characteristics that the *Roper* Court found to diminish culpability as to 16- and 17-year-olds being materially indistinguishable from those existing in the late adolescent class. Given that material indistinction, the same unacceptable likelihood exists that the brutality or cold-blooded nature of any particular crime could overpower mitigating arguments based on youth as a matter of course (*Cf.*, Roper v. Simmons 2005, p. 573).

Further, with respect to adolescents—including late adolescents—a comparison between concepts of reliability used by social scientists who create and use individual assessment instruments, the inherent unreliability of the parameters surrounding individual test scores (e.g., false positives), and diagnostic decision-making associated with individual assessment, support use of a categorical approach. As one example, determining which juveniles will and will not continue to commit criminal law violations through use of an individual assessment approach is fraught with error because the antisocial behavior of those who recidivate after reaching adulthood from those who do not is "often indistinguishable during adolescence" (Monahan et al. 2009). One reason for this is desistance from antisocial behavior—regardless of seriousness of the behavior—is a by-product of the normative maturational process in the vast majority of all adolescents (Steinberg et al. 2015). Notably, Texas, the state that clung to its court-created, non-clinical *Briseno* factors, is the only state that continues to rely upon a finding of "future dangerousness" as necessary to the imposition of the death penalty, doing so despite there being a national consensus against using future dangerousness as an eligibility factor. Assumptions based on inherently unreliable results are invalid, according to the social scientists who create and use individual assessment instruments; "[i]t is unjust and intellectually dishonest to base the deprivation of liberty on invalid assumptions" (Melton et al. 2007, p. 10). Categorical analysis is, therefore, supported by virtue of the invalidity of the assumptions supporting an individual assessment approach relative to the teenage death penalty, a position that is consistent with the requirement that capital sentencing determinations "aspire to a heightened standard of reliability" (Ford v. Wainwright 1986, p. 411), and "a correspondingly greater degree of scrutiny" (Murray v. Giarratano 1989, p. 21 n.9).

There is a scientific consensus that the structural and developmental maturity of the brains of those in the late adolescent class is materially indistinguishable from that of 17-year-olds as a class in the regions or systems of the brain subserving the three general categories of behavioral characteristics observed and found relevant to culpability and the penological goals of the death penalty by the *Roper* Court. Given that material indistinction, the imposition of the death penalty upon those in the late adolescent class does not measurably contribute to any legitimate penological goal, and the same mismatch found to exist between the culpability of 17-year-olds and the death penalty likewise exists for those in the late adolescent class.

Distinguishing the Issues in *Miller* From Those in *Roper*, and Why It Matters

The U.S. Supreme Court's post-*Roper* decisions relative to youth continue to recognize that "children are constitutionally different from adults for the purposes of sentencing" (Miller v. Alabama 2012, p. 2464). Those decisions note the signature qualities of youth—recklessness, impulsivity, and thoughtlessly engaging in risk-taking behaviors—as but three "unpleasant" hallmarks or characteristics of adolescent behavior, rendering youth "less culpable than adults" (Graham v. Florida 2010, p. 70). Thus, the characteristics attendant to youth, as informed by evolving societal standards including current and accurate science, continue to figure prominently in Eighth Amendment proportionality analysis (Miller v. Alabama 2012, pp. 2465-66).

In the 2010 *Graham* decision, relative to imposition of the sentencing practice of life without the possibility of parole in non-homicide cases involving criminally convicted defendants under the age of 18, the U.S. Supreme Court found juveniles' culpability twice diminished (Graham v. Florida 2010, pp. 68-69). Their culpability was diminished, first, by way of the signature qualities of youth, and second, by way of the line that exists between murder and non-murder offenses (the latter necessarily involving lesser culpability) (Graham v. Florida 2010, pp. 68-69). Moreover, in light of the shared, signature, culpability-diminishing qualities of youth,

penological goals proved inadequate to justify a life without parole sentence (Graham v. Florida 2010, pp. 71-74). Given the twice diminished culpability of juveniles in non-homicide cases, there was a mismatch between that lesser culpability and the severity of the sentencing practice of life without the possibility of parole, resulting in disproportionate punishment in violation of the Eighth Amendment.

In its 2012 *Miller* decision, the Court held that mandatory sentences of life imprisonment without the possibility of parole in homicide cases, when imposed on persons under the age of 18 at the time of the commission of the crimes, violates the Eighth Amendment's prohibition of cruel and unusual punishment (Miller v. Alabama 2012, p. 2469). The Court's holding flowed from the two precedential strands of Eighth Amendment jurisprudence noted previously: "categorical bans on sentencing practices based on mismatches between the culpability of a class of offenders and the severity of a penalty" (Miller v. Alabama 2012, p. 2463), and the requirement "that sentencing authorities consider the characteristics of a defendant and the details of his offense before sentencing him to death" (Miller v. Alabama 2012, p. 2463-64). "[T]he confluence of these two lines of precedent," the *Miller* Court explained, "leads to the conclusion that mandatory life-without-parole sentences for juveniles violate the Eighth Amendment" (Miller v. Alabama 2012, p. 2464). The *Miller* Court recognized that the culpability of the class was diminished by the shared, signature characteristics attendant youth. *Miller* did not, however, "foreclose a sentencer's ability to impose life without parole on a juvenile," explaining that "a lifetime in prison is a disproportionate sentence for all but the rarest of children, those whose crimes reflect irreparable corruption." (Montgomery v. Louisiana 2016, p. 726). Ultimately, *Miller* adopted a hybrid approach: Where a sentence of life without parole is in issue, children are to be categorically afforded the opportunity to show, through an individual assessment approach, that their crime did not reflect their irreparable corruption (Montgomery v. Louisiana 2016, p. 736).

> "Those prisoners who have shown an inability to reform will continue to serve life sentences. The opportunity for release will be afforded to those who demonstrate the truth of *Miller*'s central intuition—that children who commit even heinous crimes are capable of change." (Montgomery v. Louisiana 2016, p. 736).

The post-*Roper* juvenile cases, therefore, initially view the juvenile class categorically but also make relevant additional bodies of evidence demonstrating the individual capable of change and the specific characteristics of their crime as not reflecting irreparable corruption (including in light of that change). In contrast, neither the specifics as to the individual nor the specifics as to the crimes were relevant to the analytical framework used, and the decision made, in *Roper*. Further, neither are relevant to an extension of *Roper's* logic—grounded in an evaluation of the shared, signature, culpability-diminishing characteristics of 16- and 17-year-olds and the severity of the death penalty in light of penological goals—to the late adolescent class.

As noted, youthful offenders not only share signature culpability-diminishing characteristics but further share capacity for maturation and change (Roper v. Simmons 2005, p. 571; and Graham v. Florida 2010, p. 68). Given the severity and irrevocability of the death penalty, however, a youthful offender sentenced to death will never be afforded opportunity to demonstrate capacity to and/or fact of change. In contrast and as reflected in the post-*Roper* cases, less severe sentences than the death penalty—despite their harshness when imposed on youthful offenders—afford opportunity to demonstrate the capacity to change and/or change itself. Where the sentencing practice in issue is the death penalty—as was the case in *Ford*, *Thompson*, *Atkins*, and *Roper*—the shared, signature, culpability-diminishing characteristics of the classes in issue and their relationship to legitimate penological objectives lead to the conclusion that the risk is too great that class members would be sentenced to death despite insufficient culpability. A case-by-case approach does not, with sufficient accuracy, distinguish those with sufficient culpability from those but experiencing the transient attributes of youth (Graham v. Florida 2010, p. 77). In capital cases, therefore, failure to hold strictly to the *Roper* analytical framework using current objective indicia and science as to the class as a whole not only clouds the issue and analytical framework, but cedes categorical protection, opening the door to the admission of the most heinous crime- and individual-specific evidence—exactly the kind of evidence *Roper* deemed to present constitutionally intolerable risk.

Conclusion

The U.S. Constitution requires that the severity of appropriate punishment necessarily depends on the culpability of the offender. In the capital context, not only is the culpability of the average murderer insufficient to justify the death penalty, retribution is not proportional if the law's most severe penalty is imposed on one whose culpability or blameworthiness is diminished by reason of youth and immaturity.

Current scientific consensus exists that the brains of those within the late adolescent class are not fully developed, structurally or functionally—especially in those areas of the brain associated with self-control and self-regulation including impulsivity and risky decision-making, considering and responding to peer pressure, and in solidifying character formation—until at least 20 years of age. Thus, those in the late adolescent class possess shared, signature, culpability-

diminishing characteristics such that they are materially indistinguishable from the 16- and 17-year-olds at issue in *Roper*. This scientific consensus evidence is germane not only to issues of culpability, penological goals assessments, and the conclusion of a mismatch between the culpability of 18-, 19-, and 20-year-olds relative to the death penalty, but, as consensus evidence, it takes on special significance in court and legislative determinations such that it cannot be ignored and/or diminished.

Late adolescents' material indistinction from 16- and 17-year-olds alerts us to the fact that a bright line at 18 misses too much. Such a line effectively and arbitrarily separates those who are allowed to benefit from the culpability-diminishing characteristics of youth (including the capacity for maturation and change) from those who are not, specifically, 18-, 19-, and 20-year-olds. A bright line at age 18 broadly situates late adolescents with adults, and, by default, equates them to adults. In doing so, that line imposes upon them a burden to prove to jurors' satisfaction not only what science says exists and the meaning of that science as relates to culpability, but doing so despite the likelihood that the brutality or cold-blooded nature of any particular crime will overpower, as a matter of course, mitigating arguments based on youth. In other words, a bright line at age 18 operates to extirpate the mitigating quality of youth by virtue of the details of the crime alone, with youth, in some cases, even being used in aggravation. In effect, it equates 18-, 19-, and 20-year-olds—who are materially indistinguishable from those the U.S. Supreme Court has already deemed to be of insufficient culpability to be sentenced to death—to mature adults, something the Court itself has already deemed morally misguided and unconstitutional. The shared, signature, culpability-diminishing characteristics of those in the late adolescent class, making them materially indistinguishable from adolescents already exempt from capital punishment, necessitate their categorical exemption from the death penalty. Absent that, the risk is too great that 18-, 19-, and 20-year-olds will be sentenced to death, and executed, despite their diminished culpability, which by its nature, deems them not among the worst of the worst.

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