

NOTICE: All slip opinions and orders are subject to formal revision and are superseded by the advance sheets and bound volumes of the Official Reports. If you find a typographical error or other formal error, please notify the Reporter of Decisions, Supreme Judicial Court, John Adams Courthouse, 1 Pemberton Square, Suite 2500, Boston, MA, 02108-1750; (617) 557-1030; SJCRreporter@sjc.state.ma.us

SJC-11693

COMMONWEALTH vs. SHELDON MATTIS.

Suffolk. February 6, 2023. - January 11, 2024.

Present: Budd, C.J., Gaziano, Lowy, Cypher, Kafker, Wendlandt,
& Georges, JJ.

Homicide. Constitutional Law, Sentence, Cruel and unusual punishment, Parole. Parole. Practice, Criminal, Sentence, Parole.

Indictments found and returned in the Superior Court Department on December 21, 2011.

Following review by this court, 484 Mass. 742 (2020), findings of fact and a ruling of law were issued by Robert L. Ullmann, J.

Ryan M. Schiff (Paul R. Rudof & Ruth Greenberg also present) for the defendant.

Cailin M. Campbell, Special Assistant District Attorney (John C. Verner, Assistant District Attorney, also present) for the Commonwealth.

The following submitted briefs for amici curiae:

Darina Shtrakhman, of California, Matt K. Nguyen, of the District of Columbia, & Adam Gershenson for Jeffrey Aaron & others.

Andrea Lewis Hartung, of Illinois, & Marsha L. Levick, of Pennsylvania, & Oren Nimni for the Sentencing Project & others.

Jonathan W. Blodgett, District Attorney for the Eastern District, & David F. O'Sullivan, Assistant District Attorney, for District Attorney for the Eastern District & another.

Jasmine Gonzales Rose, of Oregon, Duke K. McCall, III, & Douglas A. Hastings, of the District of Columbia, Robert S. Chang, of Washington, Caitlin Glass, Neda Khoshkhoo, & Katharine Naples-Mitchell for Boston University Center for Antiracist Research & others.

Kenneth J. Parsigian, Avery E. Borreliz, Erin M. Haley, & Martin W. Healy for Carol S. Ball & others.

Benjamin H. Keehn, Committee for Public Counsel Services, & John J. Barter for Committee for Public Counsel Services.

BUDD, C.J. When it comes to determining whether a punishment is constitutional under either the Eighth Amendment to the United States Constitution or art. 26 of the Massachusetts Declaration of Rights, youth matters. See, e.g., Miller v. Alabama, 567 U.S. 460 (2012); Graham v. Florida, 560 U.S. 48 (2010); Roper v. Simmons, 543 U.S. 551 (2005); Diatchenko v. District Attorney for the Suffolk Dist., 466 Mass. 655 (2013) (Diatchenko I), S.C., 471 Mass. 12 (2015). In Miller, supra at 465, 476, the United States Supreme Court struck down mandatory life imprisonment without the possibility of parole for juveniles based in part on the "mitigating qualities of youth." Approximately one and one-half years later, this court went further than Miller and concluded that sentencing a juvenile to life without parole in any circumstance would violate art. 26. See Diatchenko I, supra at 669-670.

The defendant, Sheldon Mattis, was convicted of murder in the first degree, among other charges, and was sentenced to a

mandatory term of life in prison without the possibility of parole, see G. L. c. 265, § 2 (a). Commonwealth v. Watt, 484 Mass. 742, 754-756 (2020). On appeal, he challenged the constitutionality of his sentence as applied to him. He argued that because he was eighteen years old at the time of the murder, he is entitled to the same protection as juvenile offenders (i.e., those from fourteen to seventeen years of age) convicted of murder in the first degree, who receive a term of life with the possibility of parole. See G. L. c. 265, § 2 (b).

Here, we consider whether our holding in Diatchenko I should be extended to apply to emerging adults, that is, those who were eighteen, nineteen, and twenty years of age when they committed the crime.¹ Based on precedent and contemporary standards of decency² in the Commonwealth and elsewhere, we conclude that the answer is yes.³

¹ For the purposes of this opinion, "emerging adult" is defined as someone who is eighteen, nineteen, or twenty years of age. Although the record contains some references to individuals who are as old as twenty-four years of age as "emerging adults," the focus of the record and the Superior Court judge's factual findings, which guide our analysis today, are limited to offenders who are aged eighteen, nineteen, or twenty at the time of the crime.

² As discussed infra, our understanding of contemporary standards of decency is informed by the updated scientific record.

³ We acknowledge the amicus briefs submitted by (1) twenty-three retired Massachusetts judges, Boston Bar Association, and Massachusetts Bar Association; (2) seventeen neuroscientists,

Background. 1. The homicide. The evidence presented in the defendant's trial is summarized in Watt, 484 Mass. at 744-745.⁴ We provide a condensed version of events as the jury could have found them. On September 25, 2011, the defendant; his codefendant, Nyasani Watt; and another friend observed Kimoni Elliott standing outside a nearby convenience store. Id. at 744. The defendant approached Elliott on a bicycle and asked him where he was from. Elliott replied, "Everton." Id. The two then parted ways. Id.

Elliott met Jaivon Blake in a nearby parking lot while the defendant returned to Watt and said, "[B]e easy, because that's them kids." Watt, 484 Mass. at 744-745. A few minutes later, when Elliott and Blake were in view, the defendant handed Watt a gun and told Watt "to go handle that." Id. at 745. Watt rode toward Elliott and Blake on a bicycle and shot them from behind. Id. Elliott survived gunshot wounds to his neck and right arm,

psychologists, and criminal justice scholars; (3) Sentencing Project, Juvenile Law Center, and Roderick and Solange MacArthur Justice Center; (4) the Committee for Public Counsel Services; (5) Boston University Center for Antiracist Research, Fred T. Korematsu Center for Law and Equality, Center on Race, Inequality, and the Law, and Criminal Justice Institute at Harvard Law School; and (6) the district attorney for the Eastern district and the district attorney for the Plymouth district.

⁴ The defendant and Watt were tried together, and their appeals were consolidated. The decision was published under Watt's name.

but Blake died from a single gunshot wound to the torso. Id. at 744.

2. Procedural history and development of the record. In 2013, the defendant and Watt were tried jointly and convicted of murder in the first degree on the theories of deliberate premeditation and extreme atrocity or cruelty, among other charges. Watt, who was seventeen at the time of the shooting, received a life sentence with the possibility of parole after fifteen years.⁵ Watt, 484 Mass. at 745. See G. L. c. 265, § 2 (b). See also G. L. c. 127, § 133A; G. L. c. 279, § 24. The defendant, who had turned eighteen approximately eight months prior to the crime, received a life sentence without the possibility of parole. Watt, supra. See G. L. c. 265, § 2 (a). See also G. L. c. 127, § 133A. Each defendant filed a motion for a new trial. Among other things, the defendant argued that his mandatory sentence of life without parole violated art. 26's prohibition of cruel or unusual punishment because he was under twenty-two years of age when he committed the murder. A

⁵ Sentencing in this case occurred after the United States Supreme Court's decision in Miller, but mere days before we issued our decision in Diatchenko I. Despite not yet having our guidance on how to sentence such juveniles in the absence of new legislation on the matter, the judge correctly sentenced Watt to the equivalent penalty for murder in the second degree -- the "next-most severe sentence under the sentencing statute" available at the time for a juvenile convicted of murder in the first degree. See Watt, 484 Mass. at 753.

Superior Court judge denied both motions, and the appeals from these denials were consolidated with the defendants' direct appeals. Watt, supra at 743-744.

We unanimously upheld the denial of both defendants' postconviction motions and affirmed all convictions. Watt, 484 Mass. at 765. However, we remanded the defendant's case⁶ to the Superior Court for "development of the record with regard to research on brain development after the age of seventeen[, which] will allow us to come to an informed decision as to the constitutionality of sentencing young adults to life without the possibility of parole." Id. at 756.

A Superior Court judge, who had also been the trial judge, conducted three days of evidentiary hearings during which three expert witnesses -- neuroscientist Dr. Adriana Galván, forensic psychologist⁷ Dr. Robert Kinscherff, and forensic psychologist Dr. Stephen Morse -- testified on the topic of adolescent neurological and psychological development after the age of seventeen.⁸ The defendant also entered in the record the

⁶ Because the art. 26 question did not apply to Watt, we remanded only the defendant's case to the Superior Court. Watt, 484 Mass. at 765.

⁷ "[F]orensic psychology [i]s the use of psychological theories and methods and data to help the legal system resolve legal questions."

⁸ The parties agree that all of the experts who submitted evidence in the record are duly qualified in the relevant fields

transcript of the testimony of a fourth expert witness, developmental psychologist Dr. Laurence Steinberg.⁹ The

of neuroscience and forensic psychology, among other specialties, and are recognized as leaders in their respective professional fields.

Galván holds a Ph.D. in neuroscience and is a tenured professor of psychology at the University of California, Los Angeles (UCLA), as well as the director of UCLA's Developmental Neuroscience Lab. She has coauthored over one hundred book chapters and peer-reviewed studies, many of which have been published in leading journals in her field. She has received numerous honors and awards, including the Presidential Early Career Award for Scientists and Engineers as well as the Troland Award from the National Academy of Sciences.

Kinscherff holds both a juris doctor and a Ph.D. in clinical psychology. He is a professor in the doctoral psychology program at William James College. He has been qualified as an expert in forensic psychology numerous times and was formerly the Assistant Commissioner for Forensic Mental Health at the Department of Mental Health.

Morse holds both a juris doctor and a Ph.D. in psychology and social relations. He is a tenured professor of law and professor of psychology and law at the University of Pennsylvania. He has written numerous articles on neuroscience and the law, many of which have been published in leading journals on law and neuroscience. He has been qualified as an expert in at least twenty cases and was previously the Legal Director at the MacArthur Foundation's Law and Neuroscience Project.

Galván and Kinscherff testified on behalf of the defendant. Morse testified on behalf of the Commonwealth.

⁹ Steinberg holds a Ph.D. in human development and family studies. He is a tenured professor at Temple University. Over the course of forty years, he has authored scores of studies that have been published in peer-reviewed journals, including top journals in his field. He has been qualified as an expert in developmental psychology approximately thirty times. His research was cited in two of the leading Supreme Court cases on the Eighth Amendment's ban on cruel and unusual punishment as

Commonwealth and the defendant also submitted voluminous exhibits, including numerous scientific studies on adolescence and neurobiological maturity.

The record was transmitted to us in May 2021 but did not include factual findings. In December 2021, we again remanded this case, along with the case underlying our decision in Commonwealth v. Robinson, 493 Mass. (2023), to the Superior Court for the development of factual findings based on the previously transmitted record.¹⁰ Specifically, we requested findings regarding "whether the imposition of a mandatory sentence of life without the possibility of parole for . . . those convicted of murder in the first degree who were eighteen to twenty-one at the time of the crime, violates [art.] 26."

A different Superior Court judge issued factual findings in July 2022, concluding that the mandatory imposition of a sentence of life without parole for offenders who were eighteen,

applied to juveniles. See Miller, 567 U.S. at 471 (referencing Steinberg & Scott, *Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty*, 58 Am. Psychologist 1009, 1014 [2003]); Roper, 543 U.S. at 569-573 (same). Steinberg testified on behalf of the defendant in the case underlying our decision in Commonwealth v. Robinson, 493 Mass. (2023), a case raising a nearly identical sentencing claim. See note 10, infra.

¹⁰ This case was paired with the one underlying Robinson, 493 Mass. , because, similarly to Mattis, Robinson asked this court to consider whether a sentence of life without parole is constitutional when applied to those who committed their crime while under twenty-one years of age.

nineteen, or twenty years old at the time they committed the crime is a violation of art. 26. In particular, the judge found that emerging adults are "less able to control their impulses" and that "their reactions in [emotionally arousing] situations are more similar to those of [sixteen and seventeen year olds] than they are to those [twenty-one to twenty-two] and older." The case and its entire evidentiary record subsequently were transmitted back to this court, where the defendant argued that it is unconstitutional to sentence an emerging adult to life without the possibility of parole in any circumstance, and the Commonwealth argued that such a sentence is constitutional if imposed after an individualized hearing.

Discussion. Adopted in 1780, art. 26 states: "No magistrate or court of law, shall . . . inflict cruel or unusual punishments." In evaluating the constitutionality of a sentence, this court is guided by "[t]he fundamental imperative of art. 26 that criminal punishment be proportionate to the offender and the offense." Diatchenko I, 466 Mass. at 671. A punishment is unconstitutional (i.e., cruel or unusual) if it is so disproportionate to the crime that it "shocks the conscience and offends fundamental notions of human dignity." Id. at 669, quoting Cepulonis v. Commonwealth, 384 Mass. 495, 497 (1981).¹¹

¹¹ Similarly, the Eighth Amendment's prohibition on cruel and unusual punishment "flows from the basic 'precept of justice

1. Constitutional framework. To evaluate the proportionality of a mandatory life sentence imposed on a category of offenders (here, emerging adults), we look to precedent as well as what contemporary standards of decency, as defined by objective indicia, require. See Graham, 560 U.S. at 61, quoting Roper, 543 U.S. at 563-564 ("The Court first considers 'objective indicia of society's standards, as expressed in legislative enactments and state practice,' to determine whether there is a national consensus against the sentencing practice at issue. . . . [Then] guided by 'the standards elaborated by controlling precedents and by the Court's own understanding and interpretation of the Eighth Amendment's text, history, meaning, and purpose,' . . . the Court must determine . . . whether the punishment in question violates the Constitution"); Roper, supra at 560-561.¹² As for

that punishment for crime should be graduated and proportioned' to both the offender and the offense." Miller, 567 U.S. at 469, quoting Roper, 543 U.S. at 560.

¹² The dissent asserts that the "tripartite" test is the proper tool to analyze the constitutionality of the sentence here. Post at . See Commonwealth v. Jackson, 369 Mass. 904, 910-916 (1976). That test considers (1) the nature of the offense and the offender in light of the degree of harm to society, (2) the sentence imposed and penalties prescribed for more serious crimes in Massachusetts, and (3) a comparison between the sentence imposed with the penalties prescribed for the same offense in other jurisdictions. It traditionally has been used, both by this court and the Supreme Court, to assess whether a term-of-years sentence is grossly disproportionate to a given offense, considering all the circumstances of a

the latter, current scientific consensus regarding the characteristics of the class can help determine the contemporary standards of decency pertaining to that class. See Diatchenko I, 466 Mass. at 659-661, 669-671. See also Miller, 567 U.S. at 471-472 ("Our decisions rested not only on common sense . . . but on science and social science as well"); Graham, supra at 68; Roper, supra at 569-570; Commonwealth v. Okoro, 471 Mass.

particular case. Id. See, e.g., Commonwealth v. Sharma, 488 Mass. 85, 89-90 (2021); Commonwealth v. LaPlante, 482 Mass. 399, 403 (2019); Commonwealth v. Perez, 477 Mass. 677, 685-686 (2017), S.C., 480 Mass. 562 (2018); Opinions of the Justices, 378 Mass. 822, 824-825 (1979). See also Ewing v. California, 538 U.S. 11 (2003); Harmelin v. Michigan, 501 U.S. 957 (1991); Solem v. Helm, 463 U.S. 277 (1983).

Although the tripartite test incorporates elements of the approach we use today, it is of limited utility here. Its "threshold comparison between the severity of the penalty and the gravity of the crime does not advance the analysis" where neither the sentence's proportionality to the charged offense nor the existence of a more serious offense in the Commonwealth is being challenged. See Graham, 560 U.S. at 61. Rather, our cases show, and Supreme Court precedent affirms, that it is the "categorical" framework, which focuses on contemporary standards of decency, that applies here, where the task is to assess whether a sentence is disproportionate when applied to an entire category of offenders. See id. ("In cases turning on the characteristics of the offender, the Court has adopted categorical rules . . . [and] consider[ed] 'objective indicia of society's standards'"); Diatchenko I, 466 Mass. at 669 (contemporary standards of decency render imposition of life without parole sentence on particular category of offenders unconstitutionally disproportionate). See also, e.g., Roper, 543 U.S. at 560-563 (standards of decency dictate death penalty's unconstitutionality when imposed on those under eighteen); Atkins v. Virginia, 536 U.S. 304, 321 (2002) (standards of decency dictate death penalty's unconstitutionality when imposed on those with intellectual disabilities).

51, 60 (2015) ("the determination that youth are constitutionally distinct from adults for sentencing purposes has strong roots in recent developments in the fields of science and social science").

a. Precedent. In a series of cases responding to challenges to juvenile sentences, the Supreme Court has consistently opined that the "mitigating qualities of youth" must be taken into consideration when it comes to sentencing. Johnson v. Texas, 509 U.S. 350, 367 (1993). See, e.g., Jones v. Mississippi, 141 S. Ct. 1307, 1314 (2021), citing Miller, 567 U.S. at 476; Johnson, supra ("A sentencer in a capital case must be allowed to consider the mitigating qualities of youth in the course of its deliberations over the appropriate sentence"). For example, when striking down the death penalty for juveniles in Roper, the Court discussed the "relevance of youth as a mitigating factor" at length, concluding that "[o]nce the diminished culpability of juveniles is recognized, it is evident that the penological justifications for the death penalty apply to them with lesser force than to adults." Roper, 543 U.S. at 570-571.

In Graham, 560 U.S. at 76, the Court noted that an "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." The Court

concluded that it was unconstitutional to sentence juveniles who did not commit homicide to life without parole because they lack the maturity to be classified among the worst offenders deserving of the harshest punishments. The Court further noted that although "[m]aturity can lead to that considered reflection which is the foundation for remorse, renewal, and rehabilitation . . . [a] young person who knows that he or she has no chance to leave prison before life's end has little incentive to become a responsible individual."¹³ Id. at 79.

More recently in Miller, 567 U.S. at 476, in which the Court held that a judge must be able to consider "mitigating qualities of youth" in formulating a sentence, the Court reiterated that youth is not simply a "chronological fact" (citation omitted). Rather, "[i]t is a time of immaturity, irresponsibility, impetuosity[,] and recklessness. . . . It is a moment and condition of life when a person may be most susceptible to influence and to psychological damage. . . . And its signature qualities are all transient" (citations and quotations omitted). Id. As a result, the Court reasoned, the Eighth Amendment forbids a sentencing scheme that mandates life

¹³ Although Graham's ban on life sentences without the possibility of parole for juveniles applied only to nonhomicide crimes, as the Miller Court pointed out, "none of what [Graham] said about children -- about their distinctive (and transitory) mental traits and environmental vulnerabilities -- is crime-specific." Miller, 567 U.S. at 473.

without parole for juvenile offenders because such a scheme precludes a consideration of youth and the circumstances and characteristics attendant to it. Id. at 479.

Approximately one and one-half years after Miller was decided, we considered whether sentencing a juvenile offender to life without the possibility of parole comported with art. 26. See Diatchenko I, 466 Mass. at 661. Ultimately, this court went further than Miller and concluded that because it is not possible to demonstrate that a juvenile offender is "irretrievably depraved," under the Massachusetts Declaration of Rights, such a sentence is cruel or unusual as imposed on a juvenile in any circumstance. Id. at 670-671.

Central to each of the foregoing cases is the "fundamental precept of justice that punishment for crime should be graduated and proportioned to both the offender and the offense" (citation and quotations omitted). Id. at 669. Until now, we have declined to consider extending Diatchenko I to offenders eighteen years of age and older. See Watt, 484 Mass. at 755-756, and cases cited. However, we also recognized that "researchers continue to study the age range at which most individuals reach adult neurobiological maturity . . . and that such research may relate to the constitutionality of sentences of life without parole for individuals other than juveniles" (citation and quotation omitted). Id. The judge's findings in

this case, described more fully infra, confirm that the brains of emerging adults are similar to those of juveniles.

b. Contemporary standards of decency. An assessment of a punishment's proportionality occurs "in light of contemporary standards of decency which mark the progress of society."

Diatchenko I, 466 Mass. at 669, quoting Good v. Commissioner of Correction, 417 Mass. 329, 335 (1994). See Okoro, 471 Mass. at 61 (proportionality of punishment is determined based on "the evolving standards of decency that mark the progress of a maturing society" [citation omitted]). Here, we consider the updated research on the brains of emerging adults, as well as the way emerging adults are treated in the Commonwealth and elsewhere, to determine whether a sentence of life without the possibility of parole is proportionate and thus constitutional when imposed upon that class of offenders.

i. Science and social science. As mentioned supra, where modern scientific consensus regarding a particular class exists, it can be useful in determining the contemporary standards of decency as they relate to that class. See Miller, 567 U.S. at 471-472; Okoro, 471 Mass. at 59-60.

Advancements in scientific research have confirmed what many know well through experience: the brains of emerging adults are not fully mature. Specifically, the scientific record strongly supports the contention that emerging adults

have the same core neurological characteristics as juveniles have. As the Superior Court judge noted, "Today, neuroscientists and behavioral psychologists know significantly more about the structure and function of the brains of [eighteen] through [twenty year olds] than they did [twenty] years ago" This is the result of years of targeted research and greater access to relatively new and sophisticated brain imaging techniques, such as structural magnetic resonance imaging (sMRI) and functional magnetic resonance imaging (fMRI).¹⁴ From the detailed evidence produced in the record, the judge made four core findings of fact regarding the science of emerging adult brains: emerging adults (1) have a lack of impulse control similar to sixteen and seventeen year olds in emotionally arousing situations,¹⁵ (2) are more prone to risk taking in pursuit of rewards than those under eighteen years and those over twenty-one years, (3) are more susceptible to peer

¹⁴ sMRIs allow researchers to examine the brain's anatomical structures at particular moments in time; fMRIs allow researchers to examine the brain's activation and responses to stimuli and environmental context. As Galván testified, MRIs, particularly sMRIs, have allowed researchers "to see [a] fine grain view of the brain that other technologies would not allow."

¹⁵ This also is referred to as being under "hot cognition." The experts testified that under "cold cognition," which is the absence of emotionally arousing circumstances, the emerging adult brain functions much more similarly to the older adult brain than to the adolescent brain.

influence than individuals over twenty-one years, and (4) have a greater capacity for change than older individuals due to the plasticity of their brains. The driving forces behind these behavioral differences are the anatomical and physiological differences between the brains of emerging and older adults. See Steinberg, *A Social Neuroscience Perspective on Adolescent Risk-Taking*, 28 *Developmental Rev.* 78, 82-84, 85-89 (2008). These structural and functional differences make emerging adults, like juveniles, "particularly vulnerable to risk-taking that can lead to poor outcomes."

We discuss each of the judge's four core factual findings in turn.

A. Impulse control. The judge found that in terms of impulse control, emerging adults are more similar to sixteen and seventeen year old juveniles than to older adults. That is, they are less able to control their impulses in emotionally arousing situations. This finding is well supported by the record.

Emerging adults still are experiencing the effects of "the sharp increase during puberty of certain hormones," lack a fully developed prefrontal cortex, which is "the part of the brain that most clearly regulates impulses," and lack fully developed connections "between the prefrontal cortex and other parts of the brain . . . that most clearly respond[] to rewards and

reward-related decision making." All four experts agreed that compared to older adults, emerging adults are more impulsive, more concerned with their immediate circumstances, and less able to envision future consequences. Galván explained that at least part of this distinction between emerging and older adults can be traced to differences in brain structure between the groups. "[T]he prefrontal cortex is the home for these abilities that we might say are what makes us adults . . . the ability to reason, the ability to think about how your actions today will have implications for the future." As the brain matures, it "undergoes a process called pruning and [eliminates]" synapses and neurons that are not needed. Advancements in sMRI data have allowed researchers "to measure this cortical thickness and thinning and the process continues through [eighteen], [nineteen], [twenty] years old."

All of the other experts, including the Commonwealth's expert, agreed that the prefrontal cortex, an area of the brain associated with controlling impulses, is among the last brain regions to develop, and continues developing until the early to mid-twenties. See Icenogle et al., Adolescents' Cognitive Capacity Reaches Adult Levels Prior to Their Psychosocial Maturity: Evidence for a "Maturity Gap" in a Multinational, Cross-Sectional Sample, 43 Law & Hum. Behav. 69, 70 (2019); Sowell & others, In Vivo Evidence for Post-Adolescent Brain

Maturation in Frontal and Striatal Regions, 2 Nature Neurosci. 859, 860-861 (1999); Steinberg et al., Around the World, Adolescence Is a Time of Heightened Sensation Seeking and Immature Self-Regulation, Developmental Sci., vol. 21, Mar. 2018, at 1-4, 15-17.

B. Risk taking in pursuit of reward. The judge found that "[a]s a group, [individuals eighteen through twenty years of age] in the United States and other countries are more prone to 'sensation seeking,' which includes risk-taking in pursuit of rewards, than are individuals under age [eighteen] and over age [twenty-one]." This finding similarly is well supported by the record.

All of the experts agreed that emerging adults are more likely than children or older adults to engage in risky behavior and that risky behaviors tend to peak in late adolescence to early adulthood and then decline, with some experts asserting that this behavior plateaus around twenty-two years of age. Galván explained that fMRI studies evaluating the brain have shown that in individuals at least seventeen years of age, and up to twenty-one years of age, there is greater activity in the nucleus accumbens, a part of the brain associated with sensation seeking, than in older adults. Additionally, fMRI studies have shown that the ventral striatum, a part of the brain that correlates with risk-taking behaviors, also is more active among

late adolescents and early adults than it is in older adults. This research tracks numerous real-world behaviors. Emerging adults are overrepresented in multiple types of risky behavior, such as risky sexual behavior and risky driving behavior, in addition to risky criminal behavior. See Roper, 543 U.S. at 569, quoting Arnett, *Reckless Behavior in Adolescence: A Developmental Perspective*, 12 *Developmental Rev.* 339 (1992) ("It has been noted that 'adolescents are overrepresented statistically in virtually every category of reckless behavior'").

Each expert discussed the so-called "age-crime curve," which is a widely recognized phenomenon illustrating that criminal behavior crests at some point from late adolescence to early adulthood before significantly declining. Put succinctly, as with those under eighteen years of age, "late adolescence^[16]

¹⁶ All the experts referred to individuals from eighteen to twenty years of age as "late adolescents." We refer to this age group as "emerging adults." We do not agree with the dissent that this appellation indicates that we improperly are veering into the Legislature's lane. As the Supreme Court noted when it declared the death penalty unconstitutional for juveniles, line drawing is a necessary task when considering categorical bans on unconstitutional sentences. Roper, 543 U.S. at 574 ("Drawing the line at [eighteen] years of age is subject, of course, to the objections always raised against categorical rules. The qualities that distinguish juveniles from adults do not disappear when an individual turns [eighteen]. By the same token, some under [eighteen] have already attained a level of maturity some adults will never reach. For the reasons we have discussed, however, a line must be drawn").

is a period in human development of increased risk taking, greater reactivity to high stress or highly emotionally arousing events and certain kinds of cognitive biases that, for example, lead them [(i.e., juveniles and emerging adults)] to not appraise a risk and apply it to themselves in the same way that an adult would." See Galván et al., Earlier Development of the Accumbens Relative to Orbitofrontal Cortex Might Underlie Risk-Taking Behaviors in Adolescents, 26 J. Neurosci. 6885, 6885-6892 (2006); Hawes et al., Modulation of Reward-Related Neural Activation on Sensation Seeking across Development, 283 NeuroImage 763, 763-771 (2017); Rudolph et al., At Risk of Being Risky: The Relationship Between "Brain Age" under Emotional States and Risk Preference, Developmental Cognitive Neurosci., vol. 24, 2017, at 93-106; Steinberg et al., Around the World, Adolescence Is a Time of Heightened Sensation Seeking and Immature Self-Regulation, supra at 1-4, 15-17.

C. Peer influence. The judge also found that emerging adults "are more susceptible to peer influence" than older adults and that the presence of peers makes emerging adults "more likely to engage in risky behavior." All four experts agreed that current research supports this conclusion.

Steinberg's research in particular focuses on the ways in which the presence of peers affects decision-making and risk taking among different age groups. In his work, he has found

that "even if the peers aren't explicitly encouraging anything, the mere presence of peers increases the likelihood that adolescents^[17] will engage in [risky] behavior." Although the presence of peers may influence behavior at any age, "peer influence is a much more serene [sic] and powerful factor during adolescence^[18] than it is during adulthood." See Breiner et al., Combined Effects of Peer Presence, Social Cues, and Rewards on Cognitive Control in Adolescents, 60 *Developmental Psychobiology* 292, 292-302 (2018); Galván, Adolescent Brain Development and Contextual Influences: A Decade in Review, 31 *J. Res. on Adolescence* 843, 852-853 (2021); Silva et al., Peers Increase Late Adolescents' Exploratory Behavior and Sensitivity to Positive and Negative Feedback, 26 *J. Res. on Adolescence* 696, 696-705 (2015).

D. Capacity for change. Finally, the judge found that emerging adults "have greater capacity to change than older individuals because of the plasticity of the brain during these years." This finding is well supported by the record.

"[P]lasticity refers to the ability [to] change in response to the environment."¹⁹ Although the brain has its greatest

¹⁷ See note 16, supra.

¹⁸ See note 16, supra.

¹⁹ Galván explained that plasticity primarily occurs in the hippocampus, which is "a small brain region in the deep layers

plasticity in the early months of life, as Galván explained, "[t]he second wave [of plasticity] is during adolescence."²⁰ In contrast, "adult capacity for change is diminished because" the fully mature brain is much less malleable. Although the brain continues to change throughout one's lifespan, Steinberg testified that brain maturation is largely complete by as early as twenty-two years of age, and possibly up to twenty-five years of age. The Commonwealth's expert agreed that "[m]ost adolescents^[21] even those who commit serious crimes will age out of offending and will not become career criminals." See Roper, 543 U.S. at 570, quoting Johnson, 509 U.S. at 368, and citing Steinberg & Scott, *Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty*, 58 *Am. Psychologist* 1009, 1014 (2003) ("the signature qualities of youth are transient; as individuals mature, the impetuosity and recklessness that may dominate in younger years can subside"). See also Cauffman et al., *A Developmental Perspective on Adolescent Risk-Taking and Criminal Behavior*, c. 6 in *The Handbook of Criminological Theory* (2015);

of the brain that has mostly been studied in the context of learning because plasticity or any plasticity-based changes are because we've learned something new."

²⁰ See note 16, supra.

²¹ See note 16, supra.

Galván, *Insights about Adolescent Behavior, Plasticity, and Policy from Neuroscience Research*, 83 *Neuron* 262, 264 (2014).

The evidence outlined supra provides a scientifically informed view of emerging adults' culpability and factors into our analysis whether contemporary standards of decency permit sentencing that cohort to life without the possibility of parole.

ii. Treatment of emerging adults in the Commonwealth and elsewhere. To determine our contemporary standards of decency, in addition to referring to our own State statutes, see Good, 417 Mass. at 335, we may look to other policies and programs in the Commonwealth, our precedent, other States' statutes, as well as other States' judicial rulings, and even international statutes and decisions, among other sources, see Okoro, 471 Mass. at 61 (we commonly look to "judicial opinions and legislative actions at the State, Federal, and international levels," which "help to inform our understanding of what art. 26 protects" [citation omitted]). See also Thompson v. Oklahoma, 487 U.S. 815, 821-831 (1988) (looking to State statutes and death penalty juries to divine contemporary standards of decency, and noting consistency with practices of other nations); Enmund v. Florida, 458 U.S. 782, 788 (1982) (looking to "historical development of the punishment at issue, legislative judgments, international opinion, and the sentencing

decisions juries have made"); Coker v. Georgia, 433 U.S. 584, 596 (1977) ("important to look to the sentencing decisions that juries have made in the course of assessing whether capital punishment is an appropriate penalty"). As discussed infra, a combination of statutes passed here and elsewhere, as well as recent decisions in Washington and Michigan, indicate that our contemporary standards of decency do not support imposing life without parole sentences on emerging adults.

To begin, the Legislature has determined that emerging adults require different treatment from older adults, specifically in the penological context. For example, the Department of Youth Services (department) statutorily is authorized to maintain custody of young people adjudicated as youthful offenders up to twenty-one years of age. See Commonwealth v. Terrell, 486 Mass. 596, 599-600, 603 (2021); G. L. c. 119, § 58. This sentencing scheme also permits the imposition of "dual" sentences for youthful offenders, requiring them to remain in the department's custody until they are twenty-one years of age before beginning their "adult sentence" at a house of correction. G. L. c. 119, § 58 (b).

Further, in 2018, as part of a set of sweeping reforms, the Legislature authorized the Department of Correction and county houses of correction to "establish young adult correctional units." These units provide "targeted interventions, age

appropriate programming and a greater degree of individual attention" for individuals in custody "ages [eighteen] to [twenty-four]." G. L. c. 127, § 48B (a). Notably, the Legislature also formed the Task Force on Emerging Adults in the Criminal Justice System (task force), which released a report in 2020 concluding that emerging adults "are a unique population that requires developmentally-tailored programming and services."²² Emerging Adults in the Massachusetts Criminal Justice System: Report of the Task Force on Emerging Adults in the Criminal Justice System (Feb. 26, 2020), 2020 Senate Doc. No. 2840, at 6. See St. 2018, c. 69, § 221.

Massachusetts is not alone in recognizing that emerging adult offenders require different treatment from older adult offenders. For example, the District of Columbia now provides a

²² Noting that the dual sentencing scheme for youthful offenders under G. L. c. 119, § 58, applies only to juveniles, and that the task force's recommendations for emerging adults do not include offenders convicted of murder in the first degree, Justice Lowy's dissent concludes that neither demonstrates contemporary standards of decency here in the Commonwealth. Post at . See G. L. c. 119, § 74; Emerging Adults in the Massachusetts Criminal Justice System: Report of the Task Force on Emerging Adults in the Criminal Justice System (Feb. 26, 2020), 2020 Senate Doc. No. 2840, at 10. To the contrary, both examples demonstrate that the Legislature and other community members recognize that emerging adult offenders benefit from being treated differently from older adult offenders. Cf. Thompson v. Oklahoma, 487 U.S. 815, 823 (1988) (distinct treatment of younger juveniles compared to older juveniles "in criminal sanctions and rehabilitation" is evidence of contemporary standards of decency [citation omitted]).

chance at sentence reduction for people who were under twenty-five years old when they committed a crime. D.C. Code § 24-403.03. In 2019, Illinois enacted a law allowing parole review at ten or twenty years into a sentence for most crimes, exclusive of sentences to life without parole, if the individual was under twenty-one years old at the time of the offense. 730 Ill. Comp. Stat. 5/5-4.5-115. Effective January 1, 2024, Illinois also ended life without parole for most individuals under twenty-one years old, allowing review after they serve forty years. Ill. Pub. L. No. 102-1128, § 5 (2022). California has extended youth offender parole eligibility to individuals who committed offenses before twenty-five years of age. Cal. Penal Code § 3051. Similarly, in 2021, Colorado expanded specialized program eligibility, usually reserved for juveniles, to adults who were under twenty-one when they committed a felony. Colo. House Bill No. 21-1209 (2021) (enacted). In Wyoming, "youthful offender" programs were revised to offer reduced and alternative sentencing for those under thirty years old. Wyo. Stat. Ann. §§ 7-13-1002, 7-13-1003.

Legislation outside of the penological context is also instructive in ascertaining contemporary standards of decency. In Thompson, 487 U.S. at 838, the Supreme Court determined that the death penalty was unconstitutional when imposed on a fifteen year old offender based, in part, on then-current nonpenological

State statutes that treated younger juveniles differently from those closer to age eighteen. Among other things, the Court noted that "in all but one State a [fifteen]-year-old may not drive without parental consent, and in all but four States a [fifteen]-year-old may not marry without parental consent" (footnote omitted). See id. at 824-825.

Similarly, Massachusetts, like most States, distinguishes emerging adults from older adults on a range of issues, granting rights and imposing responsibilities in a graduated manner. For example, one must be eighteen years of age to enter binding and enforceable contracts, to sit on a jury, to purchase lottery tickets, and to drive a common carrier motor vehicle.²³ See G. L. c. 231, § 850; G. L. c. 234A, § 4; G. L. c. 10, § 29; G. L. c. 159A, § 9. However, one must be twenty-one years of age to purchase and sell alcoholic beverages, to purchase tobacco products, to obtain a license to carry a handgun, to be a police officer, and to gamble. See G. L. c. 138, § 34; G. L. c. 270, § 6; G. L. c. 140, § 131 (d) (iv); G. L. c. 31, § 58; G. L. c. 22C, § 10; G. L. c. 23K, §§ 25 (h), 43. These statutes reflect the commonly held view that emerging adults generally

²³ Moreover, young adults who have reached eighteen years of age may "continue to be considered 'minors'" for purposes of parental support. Eccleston v. Bankosky, 438 Mass. 428, 429 (2003), quoting Stolk v. Stolk, 31 Mass. App. Ct. 903, 904-905 (1991). See G. L. c. 208, § 28.

are not equipped to assume all the responsibilities of adulthood, especially with respect to high risk activities. Cf. Thompson, 487 U.S. at 824-825.

We are not the first State Supreme Court to appreciate the distinct ways in which our laws bear on emerging adults. Recently, the high courts in Washington and Michigan prohibited the mandatory imposition of life without the possibility of parole for those who are from eighteen to twenty years of age, and for those who are eighteen years of age, respectively. In Matter of the Personal Restraint of Monschke, 197 Wash. 2d 305 (2021), the Supreme Court of Washington considered evolving standards of decency, updated brain science, and precedent to conclude that mandatory sentences of life without parole violate the Washington Constitution when meted out to those under twenty-one when they committed the crime. See id. at 325-326.

One year later, the Supreme Court of Michigan looked at the issue as it pertained to eighteen year old offenders. The court reasoned that because "the Eighth Amendment dictates that youth matters in sentencing," and because brain science has demonstrated that eighteen year old individuals possess the same attributes of youth as do juveniles, mandatorily subjecting an eighteen year old defendant to life in prison is "unusually excessive imprisonment and thus a disproportionate sentence that constitutes 'cruel or unusual punishment' under [the Michigan

Constitution].” People v. Parks, 510 Mich. 225, 234, 255 (2022).²⁴

Twenty-two States and the District of Columbia do not mandate life without parole in any circumstance.²⁵ Of the remaining twenty-eight States, only twelve (including Massachusetts) mandate life without parole.²⁶ Moreover, the

²⁴ However, both the Washington and Michigan courts determined that a sentence of life without the possibility of parole could be imposed on young adult offenders after an individualized sentencing hearing to consider the offender's youth. See Parks, 510 Mich. at 240-241; Matter of the Personal Restraint of Monschke, 197 Wash. 2d at 327-328.

²⁵ In those twenty-two States and the District of Columbia, the highest penalties are imposed only on discretionary bases. See Alaska Stat. § 12.55.125; D.C. Code § 22-2104; Ga. Code Ann. § 16-5-1; Idaho Code Ann. §§ 18-4004, 19-2515; 720 Ill. Comp. Stat. 5/9-1; Ind. Code §§ 35-50-2-3, 35-50-2-9; Ky. Rev. Stat. Ann. § 532.030; Me. Rev. Stat. tit. 17-A, § 1603; Md. Code Ann., Crim. Law §§ 2-201, 2-203; Mont. Code Ann. § 45-5-102(2); Nev. Rev. Stat. § 200.030(4)(a)-(b); N.M. Stat. Ann. § 31-18-13; N.Y. Penal Law §§ 60.06, 70.00(5); N.D. Cent. Code § 12.1-32-01; Ohio Rev. Code Ann. §§ 2929.02, 2929.04; Okla. Stat. tit. 21, § 701.9; Or. Rev. Stat. § 163.107; R.I. Gen. Laws §§ 11-23-2, 12-19.2-1 to 12-19.2-5; S.C. Code Ann. § 16-3-20; Tenn. Code Ann. § 39-13-204; Utah Code Ann. § 76-5-203; Wis. Stat. § 973.014(1g)(c)-(2); Wyo. Stat. Ann. § 6-2-101.

²⁶ See G. L. c. 265, § 2 (a) (“any person who is found guilty of murder in the first degree shall be punished by imprisonment in the state prison for life and shall not be eligible for parole pursuant to [G. L. c. 127, § 133A]”); Colo. Rev. Stat. § 18-1.3-401(1)(a)(V)(F), (4)(a)(I)-(II) (“A person . . . shall be punished by life imprisonment” without possibility of parole); Del. Code Ann. tit. 11, § 4209 (“Any person who is convicted of first-degree murder for an offense that was committed after the person had reached [his or her] eighteenth birthday shall be punished by . . . imprisonment for the remainder of the person's natural life without benefit of probation or parole or any other reduction”); Haw. Rev. Stat.

statutes in at least two of those States provide an opportunity to avoid the mandatory nature of the sentence.²⁷ Twelve States mandate life without parole as an alternative to a discretionary death sentence,²⁸ and five States only mandate life without

§ 706-656 ("Persons eighteen years of age or over at the time of the offense who are convicted of first degree murder or first degree attempted murder shall be sentenced to life imprisonment without the possibility of parole"); Iowa Code § 902.1 (on conviction of murder in first degree, "the court shall . . . commit the defendant . . . for the rest of the defendant's life . . . [and the defendant] shall not be released on parole unless the governor commutes the sentence to a term of years"); Mich. Comp. Laws § 750.316 (any person "who commits . . . first degree murder . . . shall be punished by imprisonment for life without eligibility for parole"); Minn. Stat. § 609.106 ("the court shall sentence a person to life imprisonment without possibility of release . . . [if] the person is convicted of first-degree murder"); N.H. Rev. Stat. Ann. § 630:1-a(III) ("A person convicted of a murder in the first degree shall be sentenced to life imprisonment and shall not be eligible for parole at any time"); 18 Pa. Cons. Stat. § 1102 ("a person who has been convicted of a murder of the first degree . . . shall be sentenced to . . . a term of life imprisonment"); Va. Code Ann. § 18.2-10(a) ("Any person who was [eighteen] years of age or older at the time of the offense and who is sentenced to imprisonment for life upon conviction of a Class 1 felony shall not be eligible for . . . parole"); Wash. Rev. Code § 10.95.030 (any person "convicted of the crime of aggravated first degree murder shall be sentenced to life imprisonment without possibility of release or parole"); W. Va. Code § 61-2-2 ("Murder of the first degree shall be punished by confinement in the penitentiary for life").

²⁷ Iowa allows its Governor to commute the sentence to a term of years. Iowa Code § 902.2. Hawaii obligates the parole board to submit an application to its Governor to commute the sentence to one permitting parole after twenty years. Haw. Rev. Stat. § 706-656.

²⁸ See Ala. Code § 13a-6-2(c); Ariz. Rev. Stat. Ann. §§ 13-751(A), 13-1105(D); Ark. Code Ann. § 5-10-101(c); Fla. Stat. § 775.082; Kan. Stat. Ann. § 21-6617 (for capital murder); La.

parole if aggravating circumstances exist.²⁹ Massachusetts is one of only ten States that currently require eighteen through twenty year old individuals who are convicted of murder in the first degree to be sentenced to life without parole.

We also may consider where other nations stand in this analysis. See Okoro, 471 Mass. at 61. See also Graham, 560 U.S. at 80 ("The judgments of other nations and the international community are not dispositive as to the meaning of the Eighth Amendment," but "[t]he Court has looked beyond our Nation's borders for support for its independent conclusion that a particular punishment is cruel and unusual"). The United Kingdom has banned life without parole for any offender under twenty-one years of age at the time of the offense. Sentencing Act 2020, c. 17, § 322, sch. 21, par. 2 (U.K.). And in 2022, the Supreme Court of Canada unanimously ruled that life without parole sentences were unconstitutional for all offenders, regardless of age. R. v. Bissonnette, 2022 SCC 23. The foregoing examples suggest that the "evolving standards of decency that mark the progress of a maturing society" referenced

Rev. Stat. Ann. § 14:30(C); Miss. Code Ann. §§ 47-7-3(1)(d), 97-3-21; Mo. Rev. Stat. § 565.020; Neb. Rev. Stat. § 28-105; N.C. Gen. Stat. § 14-17; S.D. Codified Laws § 22-6-1; Tex. Penal Code Ann. § 12.31.

²⁹ See Cal. Penal Code § 190.2; Conn. Gen. Stat. §§ 53a-35a(1)(B), 53a-54b; N.J. Stat. Ann. § 2C:11-3; Va. Code Ann. §§ 18.2-10, 18.2-31; Vt. Stat. Ann. tit. 13, § 2303.

in Miller, 567 U.S. at 469, trend away from life without parole for emerging adults (citation omitted).

2. Life without parole for emerging adults violates art. 26. Our comprehensive review informs us that Supreme Court precedent, as well as our own, dictates that youthful characteristics must be considered in sentencing, that the brains of emerging adults are not fully developed and are more similar to those of juveniles than older adults, and that our contemporary standards of decency in the Commonwealth and elsewhere disfavor imposing the Commonwealth's harshest sentence on this cohort. Consequently, we conclude that a sentence of life without the possibility of parole for emerging adult offenders violates art. 26.³⁰ See Diatchenko I, 466 Mass. at 670.

3. Remedy. Because we have determined that it is unconstitutional to sentence emerging adults to life without the possibility of parole, we invalidate those provisions of our

³⁰ The contemporary standards of decency that govern our decision today do not suggest a societal consensus that those aged twenty-one and above should be treated differently from older adults. Thus, while we acknowledge that the scientific record in this case suggests that the unique attributes of youth may persist in young adults older than twenty-one, our art. 26 proportionality analysis does not rely on science alone. See Libby v. Commissioner of Correction, 385 Mass. 421, 435 (1982), quoting District Attorney for the Suffolk Dist. v. Watson, 381 Mass. 648, 661-662 (1980) ("Article 26, like the Eighth Amendment, bars punishments which are 'unacceptable under contemporary moral standards'").

criminal code that deny the possibility of parole to this cohort. General Laws c. 265, § 2, which was amended after Diatchenko I was decided, sets forth the penalty for murder in the first degree, distinguishing between the penalties for adults and juveniles:

"(a) Except as provided in subsection (b), any person who is found guilty of murder in the first degree shall be punished by imprisonment in the [S]tate prison for life and shall not be eligible for parole pursuant to [G. L. c. 127, § 133A].

"(b) Any person who is found guilty of murder in the first degree who committed the offense on or after the person's fourteenth birthday and before the person's eighteenth birthday shall be punished by imprisonment in the [S]tate prison for life and shall be eligible for parole after the term of years fixed by the court pursuant to [G. L. c. 279, § 24]."

Although we hold that it is unconstitutional to sentence individuals from eighteen to twenty years of age to life without the possibility of parole, we must "as far as possible, . . . hold the remainder [of the statute] to be constitutional and valid, if the parts are capable of separation and are not so entwined that the Legislature could not have intended that the part otherwise valid should take effect without the invalid part." Diatchenko I, 466 Mass. at 672, quoting Boston Gas Co. v. Department of Pub. Utils., 387 Mass. 531, 540 (1982). See G. L. c. 4, § 6, Eleventh ("The provisions of any statute shall be deemed severable, and if any part of any statute shall be adjudged unconstitutional or invalid, such judgment shall not

affect other valid parts thereof").³¹ Here, because emerging adults do not fit within the exception described in G. L. c. 265, § 2 (b), we must invalidate that portion of G. L. c. 265, § 2 (a), that denies parole eligibility to those from eighteen to twenty years old. See Diatchenko I, supra at 673. Likewise, we also must invalidate that portion of the parole statute, G. L. c. 127, § 133A, that denies parole to those from eighteen to twenty years of age.³²

Because the Legislature does not currently provide a parole eligibility scheme for this category of offenders, we look to the next-most severe sentence under the sentencing scheme to determine the floor of parole eligibility. See Watt, 484 Mass. at 753-754, citing Diatchenko I, 466 Mass. at 672-673. For emerging adults convicted of murder in the first degree on or

³¹ Notably, the Legislature specifically provides for the severability of G. L. c. 265, § 2. See St. 1982, c. 554, § 7 ("If any of the provisions of [G. L. c. 265, § 2,] or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of this act which can be given effect without the invalid provisions or applications, and to this end the provisions of this act are declared severable").

³² General Laws c. 127, § 133A, states in relevant part:

"Every prisoner who is serving a sentence for life in a correctional institution of the commonwealth, . . . except prisoners serving a life sentence for murder in the first degree who had attained the age of [eighteen] years at the time of the murder . . . shall be eligible for parole at the expiration of the minimum term fixed by the court under [G. L. c. 279, § 24]."

after today's decision, that means applying G. L. c. 279, § 24, as amended through St. 2014, c. 189, § 6, which sets parole eligibility for juvenile offenders who have committed murder in the first degree:

"In the case of a sentence of life imprisonment for murder in the first degree committed by a [juvenile], the court shall fix a minimum term of not less than [twenty] years nor more than [thirty] years; provided, however, that in the case of a sentence of life imprisonment for murder in the first degree with extreme atrocity or cruelty committed by a [juvenile], the court shall fix a minimum term of [thirty] years; and provided further, that in the case of a sentence of life imprisonment for murder in the first degree with deliberately premeditated malice aforethought committed by a [juvenile], the court shall fix a minimum term of not less than [twenty-five] years nor more than [thirty] years."

However, the defendant in this case was sentenced to life without the possibility of parole pursuant to G. L. c. 265, § 2 (a), prior to the enactment of the aforementioned legislative changes in 2014, post-Diatchenko I. Therefore, this defendant and other emerging adults sentenced to life without the possibility of parole prior to July 25, 2014, may only be resentenced to the constitutionally permissible penalty available at that time -- life with the possibility of parole after fifteen years. See Commonwealth v. Costa, 472 Mass. 139, 146 (2015) (resentencing limited to available statutory penalty in effect at time of conviction).

By providing an opportunity for parole, we do not diminish the severity of the crime of murder in the first degree because

it was committed by an emerging adult. Likewise, our decision today "should not be construed" to suggest that emerging adults receiving the benefit of resentencing under today's holding "should be paroled once they have served a statutorily designated portion of their sentences." Diatchenko I, 466 Mass. at 674. However, as we stated in Diatchenko I, we must recognize the "unique characteristics" of emerging adults that render them "constitutionally different" from adults for purposes of sentencing. Id., citing Miller, 567 U.S. at 471. As such, they must be granted a "meaningful opportunity to obtain release based on demonstrated maturity and rehabilitation" before the Massachusetts parole board, who will "evaluate the circumstances surrounding the commission of the crime, including the age of the offender, together with all relevant information pertaining to the offender's character and actions during the intervening years since conviction." Diatchenko I, supra, quoting Graham, 560 U.S. at 75.

Conclusion. We remand this matter to the Superior Court for resentencing consistent with this opinion.

So ordered.

KAFKER, J. (concurring). I concur with the court's comprehensive review of the expert testimony, the judge's fact finding, and the applicable law. I write separately to emphasize in particular that the letter and spirit of our trailblazing decision in Diatchenko v. District Attorney for the Suffolk Dist., 466 Mass. 655, 669 (2013) (Diatchenko I), S.C., 471 Mass. 12 (2015) (Diatchenko II), directs us to reach the same conclusion today that we reached a decade ago and extend those very same protections to the age group at issue -- eighteen through twenty year olds.

In our landmark decision in Diatchenko I, we relied on the best science available at the time, legislative recognition of the legal differences between juveniles and adults in other contexts, and the special protections of art. 26 of the Massachusetts Declaration of Rights to declare that the Legislature's imposition of life sentences without the possibility of parole for juveniles was unconstitutional, because juveniles are less culpable than adults and more capable of change. We also employed distinctive reasoning that I discuss in some detail infra. In so doing, we provided greater protections for juveniles under art. 26 than the United States Supreme Court had under the Eighth Amendment to the United States Constitution, precluding not only mandatory life sentences without the possibility of parole but also

discretionary sentences of life without the possibility of parole.

In the instant case, we are presented with comprehensive fact finding evaluating further advancements in developmental cognitive neuroscience and developmental psychology,¹ demonstrating that eighteen through twenty year olds share the same characteristics that distinguished juveniles from adults in Diatchenko I and that rendered them less culpable and more capable of change. The extensive briefing also demonstrates legislative recognition that eighteen through twenty year olds similarly require differential treatment from those twenty-one and older in other relevant and related contexts. Indeed, when this age group has been recognized by the Legislature to require differential treatment, the legal rights in question implicate those same distinctive characteristics.

Due to this convergence of science and law, I conclude that art. 26 precludes both mandatory and discretionary life

¹ As one of the experts testified, the fields of developmental cognitive neuroscience and developmental psychology work in tandem with one another. "Cognitive neuroscience is the study of the brain and the cognitive operations . . . the brain supports, including thinking and decision-making," or "higher cognitive tasks or operation[s]," while the "developmental component" refers "to the study of the brain as it develops over time and across the lifespan." Comparatively, "developmental . . . psychology is concerned with behavior," and often "the research studies that are conducted in developmental neuroscience are first informed by behaviors that are observed in studies of development[al] psychology."

sentences without the possibility of parole for those who are older than eighteen but younger than twenty-one at the time they committed murder in the first degree. Thus, after serving from twenty-five to thirty years in prison as now prescribed by the Legislature for juvenile murderers, these eighteen through twenty year olds likewise shall have the possibility of convincing the parole board that they have redeemed themselves in prison, have taken responsibility for the terrible deaths that they caused in their youth, and deserve to be paroled.²

1. Discussion. a. Diatchenko, differentiating characteristics, and State constitutional law. Our reasoning in Diatchenko I built on the foundation of the United States Supreme Court's Eighth Amendment analysis in Miller v. Alabama, 567 U.S. 460 (2012), particularly "three significant characteristics differentiating juveniles from adult offenders." Diatchenko I, 466 Mass. at 660.

"First, children demonstrate a lack of maturity and an underdeveloped sense of responsibility, leading to recklessness, impulsivity, and heedless risk-taking. Second, children are more vulnerable to negative influences and outside pressures, including from their family and peers Finally, a child's character is not as well formed as an adult's; his traits are less fixed and his

² I note that the defendant here was convicted prior to the passage of the 2014 legislation that required from twenty-five to thirty years before parole eligibility, and thus is eligible for consideration for parole, as this court explained in Diatchenko I, after fifteen years in prison. See Diatchenko I, 466 Mass. at 673-674 (explaining reasons for fifteen year parole eligibility date at time).

actions less likely to be evidence of irretrievable depravity." (Quotations, citations, and alterations omitted.)

Id. Together, these characteristics demonstrated that juveniles possessed "diminished culpability" and a "heightened capacity for change." Cf. id. at 661, quoting Miller, supra at 479. Recognizing these differences and "[a]n ever-growing body of research in developmental psychology and neuroscience [that] continues to confirm and strengthen the Court's conclusions," Miller, supra at 472 n.5, the Supreme Court concluded that a mandatory imposition of a sentence of life without the possibility of parole for juveniles was cruel and unusual in violation of the Eighth Amendment, id. at 479. The Court did, however, allow a discretionary imposition of this sentence based on an individualized hearing, requiring judges to consider "how children are different, and how those differences counsel against irrevocably sentencing them to a lifetime in prison." Id. at 480.

We then took a significant additional step in Diatchenko I, 466 Mass. at 670-671, and went well beyond the Supreme Court's Eighth Amendment protections, concluding that the greater protection afforded by art. 26 also prohibited the discretionary imposition of life without parole for juveniles convicted of murder in the first degree. We determined, consistent with the scientific evidence presented, that "a conclusive showing of

traits such as an 'irretrievably depraved character,' . . . can never be made, with integrity, by the Commonwealth at an individualized hearing to determine whether a sentence of life without parole should be imposed on a juvenile homicide offender." Id. at 669-670, quoting Roper v. Simmons, 543 U.S. 551, 570 (2005). More specifically, we held that because "the brain of a juvenile is not fully developed, either structurally or functionally, by the age of eighteen, a judge cannot find with confidence that a particular offender, at that point in time, is irretrievably depraved." Diatchenko I, supra at 670. Thus, we concluded that our State Constitution prohibited trial judges from attempting to make individualized findings that were impossible to make reliably at the time of sentencing, and so we imposed a categorical ban on the imposition of this sentence for juveniles. Id. at 669-670.

As the Superior Court judge comprehensively found and as the court explains in its opinion, the scientific evidence here demonstrates that the same three characteristics that distinguished juveniles from adults in Diatchenko I, 466 Mass. at 669-670, distinguish eighteen through twenty year olds in essentially the same way. No one disputes those findings or the

science on which they are based, including the authors of the dissenting opinions written in the instant case.³

I therefore emphasize that, based on the fact findings here, we cannot distinguish in any way this case from Diatchenko I on scientific grounds. That science was also, as explained ante, a significant factor in the decision in Diatchenko I, 466 Mass. at 669-670, helping to convince this court to provide greater protection under the State Constitution than the Supreme Court provided under the Federal Constitution when the Supreme Court's allowance of discretionary life without parole sentences for juveniles who committed murder in the first degree could not be reconciled with the science. Evolving science helps inform evolving standards of decency. Cf. Helling v. McKinney, 509 U.S. 25, 36 (1993) (regarding prison conditions, Eighth Amendment analysis requires both "scientific and statistical inquiry into the seriousness of the potential harm" and "assess[ment] whether society considers the risk . . . to be so

³ On remand, the judge heard expert testimony and oral argument and accepted an additional exhibit in evidence, before issuing findings of fact and conclusions of law on whether mandatory life without parole sentences for eighteen through twenty year old offenders violates art. 26. Neither party disputes his factual findings. Among those findings, the judge clarified that his findings were limited to those up to age twenty-one because, while one expert, Dr. Adriana Galván, included twenty-one year olds in her developmental cognitive neuroscience research, another expert, Dr. Laurence Steinberg, did not include them in his developmental psychology research.

grave that it violates contemporary standards of decency"). We particularly were concerned that trial judges would be required to make findings that the science demonstrated were not possible. Diatchenko I, supra. See the amicus brief submitted by twenty-three retired Massachusetts judges and others, at 36-40.⁴

⁴ The Supreme Court has, over the vigorous dissent of the author of Miller and two other Justices, since held that, for the individualized hearings required by the Eighth Amendment, "a finding of fact regarding a child's incorrigibility is not required" (quotation, citation, and alteration omitted). Jones v. Mississippi, 141 S. Ct. 1307, 1314-1315 (2021), quoting Montgomery v. Louisiana, 577 U.S. 190, 211 (2016). That the Supreme Court does not now require an explicit finding on incorrigibility under its line of Eighth Amendment cases does not change our previous determination under art. 26 that such a finding is necessary to justify a sentence of life without parole for those under eighteen because our State constitutional protections are greater than those of the Eighth Amendment. See Diatchenko I, 466 Mass. at 670.

Nor is our determination in Diatchenko I inconsistent with our decision in Commonwealth v. Perez, 477 Mass. 677, 679 (2017) (Perez I), S.C., 480 Mass. 562 (2018) (Perez II), which required an individualized hearing "where a juvenile is sentenced for a nonmurder offense or offenses and the aggregate time to be served prior to parole eligibility exceeds that applicable to a juvenile convicted of murder." That hearing is different from the individualized hearing that we concluded was not possible in Diatchenko I, 466 Mass. at 669-670, because the hearing required by Perez I does not concern whether parole eligibility is necessary, as all juvenile offenders are entitled to parole eligibility after Diatchenko I. See Perez II, supra at 569. Rather, it asks judges to consider the permissibility of a longer term of imprisonment prior to parole eligibility for nonmurder offenses than for murder in the first degree. See Perez I, supra; Perez II, supra. Our decision in Perez I, supra at 686, also established a presumption against such longer parole eligibility sentences under art. 26 and therefore set a

Other important aspects of Diatchenko I also should apply equally here. We emphasized, for example, that life sentences without the possibility of parole were deemed particularly severe for those required to stay in prison from youth to death; indeed, we went so far as to compare such sentences to the death penalty, which we already had deemed "unconstitutional under art. 26." See Diatchenko I, 466 Mass. at 670 (describing life sentences without possibility of parole for juveniles as being "strikingly similar" to death penalty). That same reasoning applies to eighteen through twenty year olds, who likewise are fated to spend the vast majority of their lives in prison with no hope of release at any time. If this case is to be distinguished from Diatchenko I, it must therefore be on other grounds, each of which I address and reject infra, turning once again to Diatchenko I for guidance.

b. The Legislature's right to define the punishment for the crime and distinguish juveniles from adult offenders. Justices Lowy and Cypher in their dissents emphasize that great deference is owed to the Legislature's right to define the punishment for criminal behavior and define the line between juvenile and adult offenders. See post at , (Lowy, J., dissenting); post at (Cypher, J., dissenting). As a general

very high bar to justify them, which we confirmed and clarified in Perez II, supra at 571-573.

principle, I wholeheartedly agree with these propositions. But in Diatchenko I, we did not defer to the punishment established by the Legislature or to the line drawing (or, in that case, the absence of line drawing) between juveniles and adults. Rather, we concluded that the punishment, without necessary line drawing, was unconstitutional. Diatchenko I, 466 Mass. at 658-659. In sum, we did not defer to the Legislature; we concluded that it acted unconstitutionally.

Unlike the Supreme Court in its line of cases regarding acceptable criminal punishments for juveniles under the Eighth Amendment, we also did not define explicitly a fixed constitutional line for life sentences without the possibility of parole when we decided Diatchenko I. Compare Roper, 543 U.S. at 574 ("The age of [eighteen] is the point where society draws the line for many purposes between childhood and adulthood. It is, we conclude, the age at which the line for death eligibility ought to rest" [emphasis added]), with Diatchenko I, 466 Mass. at 669-670 (relying on "current scientific research on adolescent brain development" to reach conclusion that "the judge cannot ascertain, with any reasonable degree of certainty, whether imposition of this most severe punishment is warranted"). In defining that line previously in the death penalty context, the Supreme Court also recognized that it had itself recently set that line at sixteen and then moved it.

Roper, supra at 561-562. Perhaps recognizing that this line was not fixed for all purposes and might too be a moving target for sentences of life without the possibility of parole, we did not attempt such analysis or decide that it was applicable regardless of the science. Instead, we only answered what we were asked: whether it was constitutional to sentence "juveniles" to life without the possibility of parole as the Legislature provided, and we concluded that it was not, because the science demonstrated that juveniles were less culpable and capable of change. Diatchenko I, supra at 671. We then referenced and relied on a statutory definition of "juvenile" to define the scope of our holding at the time. Id. at 659 n.8, 673 n.17.⁵

The question then becomes whether there is a meaningful constitutional difference between overruling the Legislature's decision that it is permissible to sentence juveniles to life in prison without the possibility of parole and overruling the Legislature's decision that it is permissible to sentence eighteen through twenty year olds to life in prison without the possibility of parole, when the fact finding regarding the

⁵ I do not in any way seek to redefine eighteen through twenty year olds as juveniles. Rather, I consider eighteen through twenty year olds as a distinct legal category as explained infra, as the Legislature itself has done in a variety of contexts.

scientific evidence now conclusively demonstrates that eighteen through twenty year olds, just like juveniles, are less culpable for their crimes and more capable of change than adults.

Justices Lowy and Cypher find such a basis in deference to the Legislature: we should defer to the Legislature because it did not exclude eighteen to twenty year olds from a statute that provides for life sentences without the possibility of parole for murder in the first degree. See post at , (Lowy, J., dissenting); post at (Cypher, J., dissenting). The same, however, was true for juveniles when we decided Diatchenko I, 466 Mass. at 672-673. Although the Legislature at that time authorized life sentences without the possibility of parole for juveniles, as explained supra, we found such punishment unconstitutional. Id.

Justices Lowy and Cypher in their dissents also state that we should defer to the Legislature because it has defined eighteen as a fixed line between juveniles and adults.⁶ I

⁶ Justice Cypher posits that the extension of rights to those over the age of eighteen has always been granted first by the Legislature and not the courts, and so we would be the first to define protections for a certain category of individuals based on an age group of our definition. Post at (Cypher, J., dissenting). The latter consideration ignores, however, the evolution of Federal juvenile death penalty jurisprudence, which involved judicial line drawing based on age without reliance on a clearly legislatively defined age group. In Thompson v. Oklahoma, 487 U.S. 815, 823, 838 (1988), a plurality of the Supreme Court prohibited the imposition of the death penalty for those under the age of sixteen at the time they committed their

conclude, as does the court, that the legislative line drawing is more nuanced. The Legislature does not uniformly provide eighteen through twenty year olds with the full benefits and responsibilities of those twenty-one and older. Rather, the Legislature recognizes that eighteen, nineteen, and twenty year olds fall into a distinct category requiring special consideration; they are permitted certain legal rights but not others. See State House News Service (Sen. Sess.), June 28, 2018 (statement of Sen. Jason Lewis, chair of Joint Committee on Public Health) (regarding tobacco purchasing age limit, "there really is no single age of adulthood in our society"; [w]e make decision[s] on a case-by-case basis depending on the activity"). For example, they are entitled to vote, serve on a jury or in the military, and drive a car. See G. L. c. 51, § 1 (voting); G. L. c. 234A, § 4 (jury); G. L. c. 90, § 8 (driving). See also Requirements to enlist in the U.S. military, USA.gov,

offense. This decision stood in contrast to the many ways in which the age of eighteen stood as a demarcation between juveniles and adults.

The Court in Thompson, 487 U.S. at 838, had been asked to "'draw a line' that would prohibit the execution of any person who was under the age of [eighteen] at the time of the offense." The Court limited its decision, however, to "the case before" it and so drew the line at sixteen. In 2005, in Roper, 543 U.S. at 570-571, the Court took the opportunity to extend Thompson to protect all juveniles -- those up to age eighteen -- from the imposition of the death penalty. In both instances, the judiciary -- not the Legislature -- extended these protections. For us to do the same would not, therefore, be unprecedented.

<https://www.usa.gov/military-requirements>

[<https://perma.cc/Y9MG-HWG4>] (beginning at age seventeen). But they cannot purchase and sell alcohol or tobacco, serve as a State police officer, gamble, or even supervise drivers with learner's permits. See G. L. c. 138, § 34 (alcohol); G. L. c. 270, § 6 (tobacco); G. L. c. 31, § 58 (municipal police officer); G. L. c. 22C, § 10 (State police officer); G. L. c. 23K, § 43 (gambling); G. L. c. 90, § 8B (learner's permits). They are also excluded from purchasing marijuana by a ballot initiative, demonstrating that the public recognizes a similar distinction. G. L. c. 94G, § 7 (a). Their rights regarding firearms are also more limited than those twenty-one and over. G. L. c. 140, § 131 (d) (iv) (license to carry large capacity firearm restricted to those twenty-one and over).

I thus emphasize that legal rights from which eighteen through twenty year olds are excluded appear to implicate and reflect a legislative concern about the very characteristics that are at issue in this case: "a lack of maturity and an underdeveloped sense of responsibility, leading to recklessness, impulsivity, and heedless risk-taking" and a greater "vulnerab[ility] . . . to negative influences and outside pressures, including from their family and peers" (quotations and citations omitted). Diatchenko I, 466 Mass. at 660. Senator Patricia Jehlen, the author of an amendment to the

expanded gaming bill that prohibited marketing to individuals under twenty-one, stated: "The bill itself says that casinos may not allow people under the age of [twenty-one]. . . . Current Massachusetts law says you can't buy alcohol if you're under [twenty-one]. I think that these are consistent that people's brains have not matured by the time they're [eighteen]." State House News Service (Sen. Sess.), Oct. 11, 2011. Likewise, the legislative history regarding increasing the age for tobacco consumption to twenty-one shows that the Legislature was concerned about the underdeveloped brains of young people, including those above eighteen. See State House News Service (Sen. Sess.), June 28, 2018 (statement of Sen. Jason Lewis) ("Our young people are particularly susceptible. . . . [Nicotine] has harmful health impacts on the developing brain. . . . It helps [to] get tobacco products out of high school social networks"); Press Release, Senate Passes Jason Lewis Bill to Protect Youth from the Health Risks of Tobacco and Nicotine Addiction (June 30, 2018), <https://senatorjasonlewis.com/2018/06/30/tobacco-21> [<https://perma.cc/6MQM-QHXQ>] (quoting Sen. President Harriette L. Chandler, "This legislation protects young adults whose minds and bodies are still developing . . ."). See also Governor's Legislative Files, House Bill No. 4218, "An Act increasing the minimum age for appointment as a police officer," Bill Summary

(2003) ("Advocates of this legislation suggest increasing the minimum age for appointment for the position of police officer will ensure that individuals taking on the responsibilities associated with modern policing posses[s] the requisite life skills and maturity").⁷

The criminal justice system also reflects special consideration for this age group, again reflecting the special characteristics of eighteen through twenty year olds. For example, the Legislature has authorized the Department of Youth Services to maintain custody of young people adjudicated to be youthful offenders up to age twenty-one. G. L. c. 119, § 58. Likewise, the Massachusetts Sentencing Guidelines have instructed judges to consider the developmental characteristics of eighteen through twenty year olds even when they have been tried as adults. The Legislature has also, in its recent comprehensive criminal justice reform, authorized the State and

⁷ Federal legislative history of the highway funding law that led Massachusetts to raise the drinking age to twenty-one discussed similar concerns. See Hearing before Subcommittee on Surface Transportation of the United States Senate Committee on Commerce, Science, and Transportation on Oversight of the National Highway Traffic Safety Administration (Sept. 13, 1983), reprinted in Legislative History of the Surface Transportation Assistance Act of 1982 Amendments (1984) (statement of Robert S. Vinetz, M.D.) (younger drivers' high rate of motor vehicle accidents due to "especially deadly combination of being new and inexperienced drivers, of having the tendency toward increased risk-taking, of having an exaggerated belief in their own invulnerability and in experimenting with alcohol and drugs").

county prison systems to "establish young adult correctional units" with "targeted interventions, age appropriate programming[,] and a greater degree of individual attention" for those within this age group and also extended such consideration to those as old as twenty-four, G. L. c. 127, § 48B. In sum, the Legislature has recognized that eighteen through twenty year olds are a distinct category requiring special consideration, at least regarding legal rights that implicate risky, impulsive, and potentially dangerous behavior and peer pressure -- the very characteristics at issue in this case.

Given this legislative recognition of the need for differential treatment of eighteen through twenty year olds in such contexts, and the science and fact finding in this case, which equates eighteen through twenty year olds to juveniles on the relevant three characteristics that rendered juveniles less culpable for their crimes, more capable of change, and thus entitled to the possibility of parole in Diatchenko I, 466 Mass. at 660, I conclude that eighteen through twenty year olds should likewise be entitled to State constitutional protection from life sentences without the possibility of parole. As in Diatchenko I, we should not defer to the Legislature when it recognizes the distinctive characteristics of the eighteen through twenty year old defendants at issue and treats them differently from those twenty-one and over in many ways, but

then disregards those differences for our most severe criminal punishments. Upholding such sentences means that we disregard the best science and continue to impose the most severe penalty on a distinct legal category of individuals that we know are less culpable and more capable of change.⁸

For all these reasons, this court in Diatchenko I, 466 Mass. at 671, declared the statute unconstitutional as applied to a certain age group. Deference to the Legislature's determination of a punishment that we, in Diatchenko, analogized to the death penalty is different from ordinary deference. To determine whether such a punishment is cruel or unusual is a critical function of this court, and one that the court has exercised with particular vigilance despite the objections of dissenting justices calling for greater deference to the Legislature. See id. at 672. See also, e.g., Commonwealth v. Colon-Cruz, 393 Mass. 150, 181 (1984) (Wilkins, J., dissenting);

⁸ I also concur with the court's decision to limit this relief to those under twenty-one. Unlike eighteen to twenty year olds, those twenty-one and over have been considered by the Legislature to have the full benefits and responsibilities of adults. I consider the Legislature's recognition of the need for differential treatment of those eighteen to twenty in a variety of other contexts when the legal rights in question implicate the same distinctive characteristics at issue in this case to be an important component of the analysis. That legislative recognition is absent when we consider those twenty-one and over. It is the convergence of law and science, not just science alone, that governs the art. 26 analysis here.

id. (Nolan, J., dissenting); District Attorney for Suffolk Dist. v. Watson, 381 Mass. 648, 687 (1980) (Quirico, J., dissenting).⁹

c. The role of the tripartite analysis in Diatchenko I.

Another exceptional aspect of the Diatchenko I decision is the legal authority to which this court turned for guidance and support. We did not expressly employ the tripartite analysis from Commonwealth v. Jackson, 369 Mass. 904, 910, 913 (1976), and Cepulonis v. Commonwealth, 384 Mass. 495, 497-498 (1981) (considering "the penalties prescribed for the same offense in other jurisdictions"), and therefore tie our decision to how most other States treated like offenders by applying the third step of that analysis. We did not even compare ourselves to other States or express concern that we were providing greater protection than those other States. Again, this is a critical and distinctive aspect of Diatchenko I. Instead, relying on our own State Constitution, a legislatively defined category, which in that case was juveniles, and comprehensive fact finding grounded in science, to ensure the objectivity and integrity of our decision-making process, we broke new ground in this landmark decision, like other seminal State constitutional

⁹ The deference recommended here has similarities to those dissents. See, e.g., Colon-Cruz, 393 Mass. at 184-185 (Nolan, J., dissenting). It is important to remember that Diatchenko I, 466 Mass. at 670, made the comparison between life without the possibility of parole and the death penalty. This is another critical aspect of Diatchenko I that we cannot ignore.

decisions we have issued.¹⁰ Compare Goodridge v. Department of Pub. Health, 440 Mass. 309, 312, 339 n.31 (2003) (recognizing that "our decision marks a change in the history of our marriage law" while noting only three other States' courts had taken affirmative steps to recognize same-sex marriage under their Constitutions while Federal government had not); Watson, 381 Mass. at 650, 662 (striking down death penalty for violating art. 26 because it was "unacceptably cruel under contemporary standards of decency" despite lack of "unanimity of public opinion" as it was "administered with unconstitutional arbitrariness and discrimination").

For further support when deciding Diatchenko I, 466 Mass. at 285 n.16, we turned to the author of our State Constitution, John Adams, and even widened our perspective internationally. We noted Adams's reminder that "we belong to an international community that tinkers toward a more perfect government by learning from the successes and failures of our own structures and those of other nations." Id., citing J. Adams, Preface, A Defence of the Constitutions of Government of the United States of America (1797). We also referenced the United Nations

¹⁰ I note that Diatchenko I has been cited in 127 decisions, including fifty out-of-State cases. See Goldstein, One of One: Justice Gants and Lessons from the Keo Case, 62 B.C. L. Rev. 2827, 2828 (2021) (referring to Diatchenko I as "momentous decision[]").

Convention of the Rights of the Child, which bans life in prison without parole for juveniles. Diatchenko I, supra.

Given the distinct letter and spirit of Diatchenko I described in detail supra, and the undisputed factual findings here demonstrating that eighteen through twenty year olds share the same relevant characteristics regarding diminished culpability and heightened capacity for change as juveniles, I conclude that we should extend the very same protections provided to Gregory Diatchenko to eighteen through twenty year olds. I discern no basis for distinguishing them given the distinct reasoning developed in Diatchenko I. A sentence of life in prison without parole eligibility review for those up to age twenty-one -- individuals with diminished culpability and a heightened capacity for change -- is no less cruel or unusual than it is for those up to age eighteen. Cf. Diatchenko I, 466 Mass. at 670-671. Thus, we should have been "obliged to declare part of [this statute] unconstitutional," id. at 672, and have provided these eighteen through twenty year old homicide offenders with "a meaningful opportunity for release on parole," should they "demonstrate[] maturity and rehabilitation," so that their "life sentence [is] constitutionally proportionate," Diatchenko II, 471 Mass. at 29-30.

d. Limited remedy. We also, as in Diatchenko I, 466 Mass. at 671, need only hold a very specific application of the

statute unconstitutional. As we explained in Diatchenko I, "the unconstitutionality of this punishment arises not from the imposition of a sentence of life in prison, but from the absolute denial of any possibility of parole" for a class of offenders who a trial judge cannot reliably determine to be irretrievably depraved at the time of sentencing. See id. Once they have a chance to mature, however, that decision, as well as the other factors relevant to parole, would and should be made by a parole board. That decision would also be made after many years of imprisonment. See id. at 674. Under current law, those under age eighteen who are convicted of murder in the first degree are eligible for parole only after serving from twenty-five to thirty years for murder convicted with deliberate premeditation and thirty if the murder was committed with extreme atrocity or cruelty. G. L. c. 279, § 24. I would extend the same opportunity to those older than eighteen but under the age of twenty-one. Essentially, the legislative regime imposed for juvenile murderers would be extended to eighteen to twenty year olds without further changes in the statutory scheme.

The possibility of such reformative change after a lengthy period of incarceration has also been demonstrated since we decided Diatchenko I. Of the juvenile offenders who were serving mandatory life sentences without parole at the time of

the Diatchenko I decision and have since received parole hearings, seventy-four percent have been granted parole. As Diatchenko I and its aftermath have demonstrated, the possibility of redemption exists for the young, even those who have committed the most horrible crimes, after they have spent many years in prison maturing and taking responsibility for the terrible deaths that they caused in their youth.

For all these reasons, I conclude that a sentence of life without the possibility of parole for eighteen through twenty year olds constitutes cruel or unusual punishment under art. 26 of our Declaration of Rights. That applies to both discretionary as well as mandatory life sentences without the possibility of parole for those eighteen through twenty years of age.

WENDLANDT, J. (concurring, with whom Gaziano, J., joins).

The determination whether the Commonwealth's harshest punishment is so disproportionate to the offender as to shock the conscious is neither one we abdicate to the Legislature, as marshalled by the dissent, nor one we rest on the shoulders of scientists and social scientists. I write to clarify what should be pellucid: it is our constitutional duty to ensure prescribed punishments pass constitutional muster, and nothing in art. 30 of the Massachusetts Declaration of Rights prevents us from doing so. To be faithful to the enormity of this charge, we must undertake a comprehensive review of our statutes, the scientific record, our collective experiences, and common sense.

Having examined these sources, I conclude that they confirm what any parent of adult children can tell you: a child does not go to bed on the eve of her eighteenth birthday and awaken characterized by a lessened "transient rashness, proclivity for risk, and inability to assess consequences." Miller v. Alabama, 567 U.S. 460, 472 (2012). In recognition of this indisputable fact, society does not treat the transition from childhood to adulthood as a binary act accomplished at age eighteen; becoming an adult is much more fluid, with development continuing long after a child's eighteenth birthday. In the ways that matter for the Commonwealth's harshest punishment, young adults of the ages of eighteen, nineteen, and twenty share key characteristics

with their under-eighteen year old peers; they "have diminished culpability and greater prospects for reform" than older adults and "are less deserving of the most severe punishments." See id. at 471, quoting Graham v. Florida, 560 U.S. 48, 68 (2010). For this reason, condemning a person in the process of "growing up" to die in prison on the basis that she falls on the "wrong" side of an arbitrary line drawn at age eighteen is inconsistent with "the evolving standards of decency that mark the progress of a maturing society" (citation omitted). Graham, supra at 58. Accordingly, I agree with the court that imposition of life without the possibility of parole on young adults ages eighteen, nineteen, and twenty is unconstitutional.

1. Legislature's treatment of young adults. Undoubtedly, the first source in the determination of our contemporary standards of decency that define the bounds of cruel punishment is legislative enactments. See Good v. Commissioner of Correction, 417 Mass. 329, 335 (1994) ("In divining contemporary standards of decency, we may look to State statutes and regulations, which reflect the public attitude as to what those standards are"). See also Graham, 560 U.S. at 61, quoting Roper v. Simmons, 543 U.S. 551, 563 (2005) ("The Court first considers 'objective indicia of society's standards, as expressed in legislative enactments and state practice' . . ."); Atkins v. Virginia, 536 U.S. 304, 312 (2002) ("the clearest and most

reliable objective evidence of contemporary values is the legislation enacted by the country's legislatures" [quotation and citation omitted]).¹

Our statutes reflect legislative recognition that maturity is a gradual endeavor,² and that while age eighteen is a milestone, society does not view it as the end of the metamorphosis toward adulthood. As the court and Justice Kafker thoroughly catalogue, for many activities considered by society to require greater care, less risk taking, and more resilience

¹ In concluding that a mandatory sentence of life in prison without the possibility of parole violated the Eighth Amendment to the United States Constitution when imposed on juvenile nonhomicide offenders, the United States Supreme Court considered that, although thirty-seven State legislatures permitted the sentence, only eleven States imposed the sentence in practice, and vanishingly few juvenile offenders actually received it. See Graham, 560 U.S. at 62-67 (only approximately 123 juvenile nonhomicide offenders were serving sentences of life without parole; seventy-seven of those offenders were in Florida, and the remainder were in just ten States). See also Atkins, 536 U.S. at 316 (considering that "even in those States that allow the execution of [offenders with intellectual disabilities], the practice is uncommon," in concluding that "a national consensus has developed" against executing such individuals). Because the sentence is mandatory for all adults over the age of eighteen in Massachusetts, see G. L. c. 265, § 2 (a), we cannot look to sentencing practices as they pertain to young adult offenders.

² As Justice Cypher notes, post at , at a point earlier than the age of eighteen, the Legislature has recognized that one commences the transition from being a child to being an adult and therefore awards certain freedoms to these young people before they turn eighteen years old. For example, young women, as early as age sixteen, can obtain an abortion without parental consent. See G. L. c. 112, § 12R.

to peer pressure, the Legislature continues to treat young adults over the age of eighteen like juveniles. To engage in these activities legally, young adults must wait until they are twenty-one.

This special treatment exemplifies the Legislature's acknowledgment of two facts: first, that the impetuosity of youth, the proclivity to risk taking, and the susceptibility to peer pressure are not attributes exclusive to those under the age of eighteen, and instead continue into young adulthood; and second, that these attributes are not fixed, but generally fade over time because young adults, like juveniles, are characterized by a malleability of character.³

2. Science and social science. Of course, consideration of legislation is the beginning; it is not the end of our analysis under art. 26 of the Massachusetts Declaration of Rights. To be faithful to our responsibility to protect individuals from cruel or unusual punishment meted out by the

³ Private institutions also recognize that young adults are not ready for all the responsibilities of adulthood. See, e.g., K.U. Lindell & K.L. Goodjoint, Juvenile Law Center, Rethinking Justice for Emerging Adults: Spotlight on the Great Lakes Region, at 12 (2020) ("while not a statutory restriction, most car rental companies limit rentals to individuals under age [twenty-five], recognizing the increased risk posed by this age group"). See also Metz, How Age and Gender Affect Car Insurance Rates, Forbes Advisor (updated Aug. 17, 2023), <https://www.forbes.com/advisor/car-insurance/rates-age-and-gender> [<https://perma.cc/LB8G-PHEG>] ("The high car insurance rates that young drivers pay start to go down at age [twenty-five]").

State, we cannot be blind to the truths that the scientific sources with which we have been presented show.⁴

Our experiment with scientific fact finding on the topic of adult brain development validates the graduated treatment of young persons reflected in our statutes. The court's careful review of this record is undisputed. In brief, it shows that neuroscientists see in their magnetic resonance imaging (MRI) scans corroboration for that which we experience in life; the brain characteristics of persons even years older than eighteen mirror those of persons under eighteen. The brain generally continues to develop through the mid-twenties. Until some ill-defined point in the third decade of life, adults, especially

⁴ See, e.g., Miller, 567 U.S. at 471 (determination that life in prison without possibility of parole for juveniles violates Eighth Amendment rested "not only on common sense -- on what 'any parent knows' -- but on science and social science as well" [citation omitted]); Graham, 560 U.S. at 68 (considering "developments in psychology and brain science" in Eighth Amendment proportionality analysis as to life in prison without possibility of parole for juveniles convicted of nonhomicide offenses); Roper v. Simmons, 543 U.S. 551, 569 (2005) (considering what "any parent knows" and what "scientific and sociological studies . . . tend to confirm" to conclude death penalty for juveniles violates Eighth Amendment); Diatchenko v. District Attorney for the Suffolk Dist., 466 Mass. 655, 669 (2013), S.C., 471 Mass. 12 (2015) (concluding imposition of sentence of life in prison without possibility of parole for juveniles, even after individualized hearing, violates art. 26 of Massachusetts Declaration of Rights "[g]iven current scientific research on adolescent brain development").

men,⁵ generally are more impulsive and their brains are more plastic than those of older adults.⁶

3. Collective experience and common sense. Significantly, while the findings based on current technological advances in brain science show substantial similarities between juveniles and young adults, we do not check our common sense at the laboratory door. Our statutes, experiences, and common sense tell us that there is no magic switch to the process of growing up, and that fact, now buttressed by neuroscientific data and informed by social science studies, must be weighed in the exercise of our duty to determine whether punishment is cruel or unusual. See Matter of the Personal Restraint of Monschke, 197 Wash. 2d 305, 306 (2021) ("Modern social science, our precedent,

⁵ See L. Brizendine, *The Female Brain* 44 (2006) (finding that female brain "matures two or three years earlier than the male brain"). See also Cauffman & Steinberg, (Im)maturity of Judgment in Adolescence: Why Adolescents May Be Less Culpable Than Adults, 18 *Behav. Sci. & L.* 741, 753 (2000) (finding that "females exhibit greater psychosocial maturity than males").

⁶ Scientific studies report brain maturation at different ages: sometimes at the age of twenty-one, sometimes at twenty-two, sometimes at twenty-three or twenty-five, and sometimes in the middle to late twenties. Moreover, studies report that certain aspects of brain development, such as susceptibility to peer pressure and impulse control, also appear to mature at different rates.

and a long history of arbitrary line drawing have all shown that no clear line exists between childhood and adulthood").⁷

The scientific snapshot in this case confirms that which is apparent in our laws and in our treatment of this age cohort more generally -- namely, that in the ways that matter for criminal sentencing, young adults are similar to juveniles. Like juveniles, young adults have "an underdeveloped sense of responsibility, leading to recklessness, impulsivity, and heedless risk-taking"; they are more vulnerable to peer pressure; and their "character is not as well formed as an adult's . . . and [their] actions [are] less likely to be evidence of irretrievabl[e] deprav[ity]" (quotations omitted). Diatchenko v. District Attorney for the Suffolk Dist., 466 Mass.

⁷ The parties in this case ask us to consider the constitutionality of the punishment of life in prison without the possibility of parole when it is imposed on defendants aged eighteen, nineteen, and twenty. That the scientific record is not precise as to where the line should be drawn, see note 6, supra, should come as no surprise given our collective experiences showing that, while some generalizations may be drawn, in the end "growing up" is an individualized endeavor. This does not mean that "we may as well give up and let the [L]egislature draw its arbitrary lines." Matter of the Personal Restraint of Monschke, 197 Wash. 2d at 323. At the least, in response to the only question with which we have been presented in this case, I conclude that drawing a fixed line at the age of eighteen, thereby leaving young adults aged eighteen, nineteen, and twenty to the punishment, is not supported by our statutes, the scientific data and social science, our collective experiences, or common sense.

655, 660 (2013) (Diatchenko I), S.C., 471 Mass. 12 (2015), quoting Miller, 567 U.S. at 471.

Relying on these hallmarks of youth, the United States Supreme Court concluded that mandatory life in prison without the possibility of parole is a cruel punishment when applied to juveniles. Miller, 567 U.S. at 489. And, in view of these characteristics of juveniles, we separately concluded that art. 26 prohibits the mandatory imposition of this punishment. See Diatchenko I, 466 Mass. at 667. We also concluded that art. 26 offers greater protections to our children than are available under the Eighth Amendment to the United States Constitution. Specifically, we concluded that, in view of the hallmarks of youth that characterize juveniles, art. 26's greater protection prohibits so-called Miller hearings to determine whether, on an individualized consideration of a particular juvenile homicide defendant's circumstances, the sentence of life without the possibility of parole was proportionate. Id. at 669-671. Because the aforementioned review of our statutes, the scientific data, collective experiences, and common sense confirms that these same qualities characterize young adults, it necessarily follows that art. 26 prohibits the punishment as applied to this cohort. For these reasons, I concur.

LOWY, J. (dissenting, with whom Cypher and Georges, JJ., join). I cannot say that society, through its elected officials, may not express its revulsion of the crime of murder in the first degree by imposing a punishment of life without the possibility of parole on adults without offending our Declaration of Rights. Therefore, I respectfully dissent.

The power to "define a crime and ordain its punishment" is an exclusively legislative function, and "in judging legislative determinations of crimes and punishments, we exercise our powers of review with great caution" (citation omitted). Opinions of the Justices, 378 Mass. 822, 830 & n.7 (1979). For the crime of murder in the first degree, the Legislature has deemed the mandatory imposition of life without the possibility of parole to be the appropriate punishment for adults eighteen and older convicted of this offense. While we have an obligation to intervene when the Legislature acts unconstitutionally, unless the punishment the Legislature imposes is "so disproportionate" that it "shocks the conscience and offends fundamental notions of human dignity" (citation omitted), Cepulonis v. Commonwealth, 384 Mass. 495, 497 (1981), we must exercise restraint and uphold it, see art. 26 of the Massachusetts Declaration of Rights; Eighth Amendment to the United States Constitution.

In this case, the defendant argues that, in light of recent advances in scientific brain research concerning young adults,

the line between those who may constitutionally be subject to the mandatory imposition of life without the possibility of parole and those who may not should be at the age of twenty-one, rather than at the age of eighteen. Our analysis for determining whether a punishment is constitutionally disproportionate considers whether the punishment is cruel or unusual in light of "contemporary standard[s] of decency" (citation omitted). Libby v. Commissioner of Correction, 385 Mass. 421, 431 (1982). We look to statutes enacted by the Legislature, along with regulations, as the best objective evidence for divining contemporary values. See Good v. Commissioner of Correction, 417 Mass. 329, 335 (1994). Doing so is not affording uncritical deference to the Legislature's choice of punishment, but rather it is a direct application of our constitutional doctrine that looks to legislation to derive contemporary values. Indeed, "legislatures, not courts, are constituted to respond to the will and consequently the moral values of the people." See Gregg v. Georgia, 428 U.S. 153, 175 (1976), quoting Furman v. Georgia, 408 U.S. 238, 383 (1972) (Burger, C.J., dissenting). Consequently, to determine whether this mandatory sentence violates art. 26, we must look to legislative evidence to determine whether the line that the defendant urges us to draw at the age of twenty-one is one that is consistent with society's contemporary values.

Contrary to the court's conclusion that it is, the objective sources of contemporary standards of decency in the Commonwealth simply do not reflect a public consensus that life without parole, when imposed mandatorily on individuals from eighteen to twenty who have been convicted of murder in the first degree, is cruel or unusual. Rather, the Legislature has definitively drawn the line between childhood and adulthood at eighteen, and objective indicia of contemporary standards of decency in the Commonwealth demonstrate support for, rather than objection to, treating individuals within this age range as adults in our criminal justice system when they commit the crime of murder in the first degree.

Where individuals from eighteen to twenty-one have been deemed adults by the Legislature and society, precedent relating to the sentencing of juveniles -- who are "constitutionally different from adults for purposes of sentencing" -- is inapt. Miller v. Alabama, 567 U.S. 460, 471 (2012). Thus, our decision in Diatchenko v. District Attorney for the Suffolk Dist., 466 Mass. 655, 669 (2013) (Diatchenko I), S.C., 471 Mass. 12 (2015), cannot resolve the question of the proportionality of the mandatory sentence challenged in this case. In Diatchenko I, we did not purport to draw a line between juveniles and adults. Our focus, rather, was on a category of individuals -- predefined by the Legislature -- and our inquiry as to that

category was precise and limited. See id. at 659 n.8. Where the United States Supreme Court concluded in Miller, supra at 469, that imposing mandatory life without parole on juveniles violates the Eighth Amendment, we were addressing only the discretionary imposition of such a sentence, i.e., whether, under art. 26, an individualized assessment of a juvenile offender could ever result in a determination that "a sentence of life without parole should be imposed on a juvenile homicide offender." Diatchenko I, supra at 670. We concluded that art. 26 did not permit such an individualized assessment at the time of sentencing.

As it relates to the court's conclusion that this mandatory sentence is categorically unconstitutional, scientific brain research, untethered to societal views expressed through legislation, can neither draw the line between childhood and adulthood nor manufacture a new category of individuals entitled to distinct constitutional treatment for purposes of determining whether a sentence is constitutionally disproportionate under art. 26. And, even if it could, science does not definitively place the line of brain maturation at twenty-one, but rather suggests that it extends into the mid-twenties. Perhaps nothing speaks louder to the flaws in the court's holding that this mandatory sentence violates art. 26 than the court having crafted a line that ends at age twenty-one, thereby engaging in

legislative line drawing inconsistent with the science upon which it relies. Where punishment is involved, we must look to society and the Legislature to determine where the appropriate line is and where it should be.

Our assessment under art. 26 is not whether the mandatory imposition of life without the possibility of parole for individuals from eighteen to twenty-one is, in our view, wise, prudent, or even best for society. Our inquiry is limited to whether the punishment, chosen by the Legislature, is so disproportionate that it reaches the level of cruel or unusual. See Diatchenko I, 466 Mass. at 669. Because, under our contemporary standards of decency and precedent, the mandatory imposition of life without the possibility of parole on adults who commit murder in the first degree when they are from eighteen to twenty-one is not "so disproportionate" that "it 'shocks the conscience and offends fundamental notions of human dignity,'" id., quoting Cepulonis, 384 Mass. at 497, the sentence does not violate art. 26's proscription against cruel or unusual punishment. It therefore must be upheld.

Background. On September 25, 2011, fourteen year old Kimoni Elliott was visiting his schoolmate and friend, Jaivon Blake, who lived in the area of Geneva Avenue and Everton Street in the Dorchester section of Boston. Elliott lived on Everton Street in Dorchester. That afternoon, Elliott was standing

outside a convenience store on Geneva Avenue near Levant Street in Dorchester, an area controlled by the "Flatline" gang. Elliott was looking for somebody old enough to purchase rolling papers for marijuana cigarettes for him. The defendant, eighteen year old Sheldon Mattis, was a member of the Flatline gang. He had been playing football on Levant Street with some other people when he observed Elliott walking toward the convenience store. The defendant approached Elliott and offered to purchase rolling papers for him, and after doing so, the defendant asked Elliott where he was from. When Elliott responded, "Everton," the defendant assumed that Elliott was a member of a rival gang.

Elliott and Blake then met in a nearby parking lot and started walking up Geneva Avenue towards Blake's home while the defendant returned quickly towards Levant Street. Minutes later, the defendant met with seventeen year old Nyasani Watt on the corner of Levant Street and Geneva Avenue. He turned his bicycle over to Watt and handed Watt his gun. The defendant then pointed out Elliott and Blake to Watt, patted him on the back, and told him that Watt "needed to go handle that." Watt complied. Watt approached the victims from behind while on the bicycle and fired multiple shots at them. Blake fell to the ground and later died from his injuries. Elliott, despite being shot in the neck and arm, survived.

Discussion. 1. Judicial review of punishment designated by the Legislature. "[T]he power of punishment is vested in the legislative, not in the judicial department. It is the [L]egislature, not the [c]ourt, which is to define a crime and ordain its punishment." Opinions of the Justices, 378 Mass. at 830 n.7, quoting United States v. Wiltberger, 18 U.S. (5 Wheat.) 76, 95 (1820). Entrusted with this authority, "[t]he Legislature has great latitude to determine what conduct should be regarded as criminal and to prescribe penalties to vindicate the legitimate interests of society." Commonwealth v. Jackson, 369 Mass. 904, 909 (1976). The Legislature's judgment in this area is thus "to be accorded due respect," Opinions of the Justices, supra at 830, and it is subject only to the constitutional limitations imposed by the Eighth Amendment and art. 26, see Jackson, supra.

Article 26, which affords greater protections than the Eighth Amendment, proscribes cruel or unusual punishment; the "touchstone" of this proscription is proportionality. Commonwealth v. Yat Fung Ng, 491 Mass. 247, 271 (2021). This "flows from the basic 'precept of justice that punishment for crime should be graduated and proportioned' to both the offender and the offense." Diatchenko I, 466 Mass. at 669, quoting Miller, 567 U.S. at 469. Our role as the judiciary is therefore to determine whether the punishment designated by the

Legislature is "so disproportionate to the offense as to constitute cruel [or] unusual punishment."¹ Cepulonis, 384 Mass. at 496.

"To reach the level of cruel [or] unusual, the punishment must be so disproportionate to the crime that it 'shocks the conscience and offends fundamental notions of human dignity.'" Diatchenko I, 466 Mass. at 669, quoting Cepulonis, 384 Mass. at 497. In conducting this analysis, we consider "contemporary standards of decency which mark the progress of society." Diatchenko I, supra, quoting Good v. Commissioner of Correction, 417 Mass. 329, 335 (1994). "But in judging legislative determinations of crimes and punishments, we exercise our powers of review with great caution." Opinions of the Justices, 378 Mass. at 830. See Jackson, 369 Mass. at 909 ("It is thus with restraint that we exercise our power of review to determine whether the punishment before us exceeds the constitutional limitations imposed by the Eighth Amendment and by art. 26").

"Therefore, in assessing a punishment selected by a democratically elected [L]egislature against the constitutional measure, we presume its validity." Gregg, 428 U.S. at 175. See Jackson, 369 Mass. at 909, quoting Weems v. United States, 217

¹ Article 26 prohibits the infliction of "cruel or unusual punishments," while the Eighth Amendment proscribes "cruel and unusual punishments."

U.S. 349, 379 (1910) ("The function of the [L]egislature is primary, its exercises fortified by presumptions of right and legality, and is not to be interfered with lightly, nor by any judicial conception of their wisdom or propriety"). "[W]hile we have an obligation to insure that constitutional bounds are not overreached, we may not act as judges as we might as legislators." Gregg, supra at 174-175. "We may not require the [L]egislature to select the least severe penalty possible so long as the penalty selected is not cruelly inhumane or disproportionate to the crime involved. And a heavy burden rests on those who would attack the judgment of the representatives of the people." Id. at 175. Accordingly, "a heavy burden is on the sentenced defendant to establish that the punishment is disproportionate to the offense for which he was convicted." Commonwealth v. Bianco, 390 Mass. 254, 260-261 (1983), quoting Commonwealth v. O'Neal, 369 Mass. 242, 248 (1975) (Tauro, C.J., concurring).

In concluding that the mandatory imposition of life imprisonment without the possibility of parole for individuals from eighteen to twenty-one who have been convicted of murder in the first degree violates art. 26, the court considers contemporary standards of decency and prior precedent. See ante at . Rather than consider science as an independent factor in assessing proportionality, the court, for the first time,

concludes that "current scientific consensus regarding the characteristics of the class can help determine the contemporary standards of decency pertaining to that class." Id. at .

The incorporation of science -- with which I agree -- into the consideration of contemporary standards of decency in the constitutional analysis of art. 26 risks diluting the value of both science and contemporary standards of decency in analyzing proportionality. To understand contemporary standards of decency, we must look to "'objective indicia of society's standards, as expressed in legislative enactments and state practice[,]'" to determine whether there is a national consensus against the sentencing practice at issue." Graham v. Florida, 560 U.S. 48, 61 (2010), quoting Roper v. Simmons, 543 U.S. 551, 552 (2005). Science, no doubt, is a valuable source in considering proportionality, as well as in assisting legislatures in how best to line draw around sentencing.

But science and contemporary standards of decency, although both vitally important, are distinct sources of information. It is necessary to independently examine how elected officials and States have chosen to express consensus on the proportionality of punishment, themselves having had the opportunity to weigh myriad factors, including scientific development, in their decision-making processes. The judge's factual findings in July 2022 as to the brain development of emerging adults were well

supported, and indeed I embrace them. But the court's incorporation of science into contemporary standards of decency does not change the outcome of this case. Nothing about mandatory life imprisonment without the possibility of parole for individuals from eighteen to twenty-one who have been convicted of the most heinous crime of murder in the first degree -- either with deliberate premeditation, with extreme atrocity or cruelty, or with actual malice in the commission or attempted commission of a crime punishable with life imprisonment -- offends contemporary standards of decency. See Commonwealth v. Okoro, 471 Mass. 51, 61 (2015) ("art. 26 nevertheless 'draw[s] its meaning from the evolving standards of decency that mark the progress of a maturing society,' such that developments in the area of juvenile justice in judicial opinions and legislative actions at the State, Federal, and international levels help to inform our understanding of what art. 26 protects" [citation omitted]).

Accordingly, I address contemporary standards of decency, precedent, and science in turn.

2. Contemporary standards of decency. "Article 26 bars punishments which are found to be cruel or unusual in light of contemporary standards of decency which mark the progress of society." Good, 417 Mass. at 335. The evaluation of contemporary standards of decency to assess disproportionality

"should be informed by 'objective factors to the maximum possible extent.'" Atkins v. Virginia, 536 U.S. 304, 312 (2002), quoting Harmelin v. Michigan, 501 U.S. 957, 1000 (1991) (Kennedy, J., concurring in part and concurring in the judgment). Proportionality "judgments should not be, or appear to be, merely the subjective views of individual Justices," Rummel v. Estelle, 445 U.S. 263, 274 (1980), quoting Coker v. Georgia, 433 U.S. 584, 592 (1977) (plurality opinion), and therefore "courts should pay special attention to objective factors deciding whether a practice violates 'the contemporary standard of decency.'" Libby, 385 Mass. at 431, quoting Rhodes v. Chapman, 452 U.S. 337, 347 (1981). See Coker, supra at 611 (Burger, C.J., dissenting), quoting Furman, 408 U.S. at 431 (Powell, J., dissenting) ("[W]here, as here, the language of the applicable [constitutional] provision provides great leeway and where the underlying social policies are felt to be of vital importance, the temptation to read personal preference into the Constitution is understandably great. It is too easy to propound our subjective standards of wise policy under the rubric of more or less universally held standards of decency").

"[T]he 'clearest and most reliable objective evidence of contemporary values is the legislation enacted by the . . . [L]egislature[.]'" Atkins, 536 U.S. at 312, quoting Penry v. Lynaugh, 492 U.S. 302, 331 (1989). See Gregg, 428 U.S. at 175,

quoting, Furman, 408 U.S. at 383 (Burger, C.J., dissenting) ("[I]n a democratic society legislatures, not courts, are constituted to respond to the will and consequently the moral values of the people"). Thus, "[i]n divining contemporary standards of decency, we may look to State statutes and regulations, which reflect the public attitude as to what those standards are." Good, 417 Mass. at 335. In other words, our doctrinal framework for interpreting the text looks, in part, to legislative judgments for objective evidence of contemporary values. When we infuse normative values into the open-ended provisions of art. 26's proscription against "cruel or unusual punishments," our doctrine protects against the great danger of judges infusing their own values into their interpretation of contemporary standards of decency by considering legislative judgments as to crime and punishment.

Beginning generally with legislation relating to individuals from eighteen to twenty-one, our Commonwealth considers these individuals adults, and has done so unequivocally for more than forty years. See G. L. c. 4, § 7, Forty-eighth to Fifty-first, inserted by St. 1973, c. 925 ("In construing statutes [in the Commonwealth] the following words shall have the meanings herein given . . . : 'Minor' shall mean any person under eighteen years of age. . . . 'Full age' shall mean eighteen years of age or older. . . . 'Adult' shall mean

any person who has attained the age of eighteen. . . . 'Age of majority' shall mean eighteen years of age"). Individuals in this category have been granted rights in Massachusetts generally associated with adulthood. See art. 3 of the Amendments to the Constitution of the Commonwealth, as amended through art. 100 of the Amendments (right to vote); G. L. c. 234A, § 4 (serving on jury); G. L. c. 207, §§ 7, 24 (entering marriage); G. L. c. 231, § 850 (entering contracts).² This includes the right to make decisions having potentially life-altering effect. See Norwood Hosp. v. Munoz, 409 Mass. 116, 122-123 (1991) (common-law and State constitutional right for competent adults to refuse medical treatment, even where treatment may be lifesaving).

Nothing in the statutes that restrict certain activities to individuals over the age of twenty-one alters or changes the age at which the Legislature has determined adulthood begins. Certainly none of the statutes on which the court or

² See also Office of Attorney General, *When You Turn 18*, <https://www.mass.gov/doc/your-guide-to-understanding-your-rights-responsibilities-and-how-to-protect-yourself-when-you-turn-18/download#:~:text=You're%2018!,and%20responsibilities%20of%20an%20adult> [<https://perma.cc/QU9M-YV72>] ("You're 18! In Massachusetts you've now reached the age of legal adulthood. With this milestone, you have nearly all the legal rights and responsibilities of an adult. Among your new rights are the right to vote and serve on a jury, to marry, to enlist in the military or choose medical care, and to be responsible for any contracts you sign").

concurrences rely suggests that the activity restricted is limited only to "adults."³ See G. L. c. 138, § 34 (must be twenty-one years of age to purchase and sell alcoholic beverages); G. L. c. 270, § 6 (must be twenty-one years of age to purchase tobacco products), G. L. c. 140, § 131 (d) (iv) (must be twenty-one years of age to obtain license to carry handgun); G. L. c. 22C, § 10 (must be twenty-one years of age to be State police officer); G. L. c. 31, § 58 (must be twenty-one years of age to be municipal police officer); and G. L. c. 23K, § 25 (h) (must be twenty-one years of age to gamble or be in gambling area).

Article 26's requirements, however, are not adjudged by an amorphous consideration of contemporary standards of decency as they relate to age generally. Those contemporary standards of decency must relate to some extent to the crime and punishment at hand. After all, the relevant inquiry is whether the

³ Relying on statutes that restrict or permit activities to persons of a certain age is not an appropriate measure to determine when society deems a person an adult, particularly where those statutes do not expressly limit the activity to "adults." For instance, several statutes restrict certain activities to those over the age of sixteen, such as operating a motor vehicle, G. L. c. 90, § 10, and working without a permit, G. L. c. 149, § 90, but we would not consider those statutes as evidence that a sixteen year old is an adult. Instead, the best and most reliable evidence of when society considers the beginning of adulthood is the point at which the Legislature defines a person as an adult -- eighteen. See G. L. c. 4, § 7, Fiftieth.

challenged punishment is "cruel or unusual in light of contemporary standards of decency." Good, 417 Mass. at 335. In this context, not only has the Legislature expressly provided that individuals eighteen and older are adults in our Commonwealth, see G. L. c. 4, § 7, Fiftieth, but it also has determined that these individuals are responsible as adults in our criminal justice system, see G. L. c. 119, §§ 52-54 (proceedings against children under eighteen in Juvenile Court not deemed criminal). This has included the mandatory imposition of life without parole on individuals over eighteen convicted of murder in the first degree. See G. L. c. 265, § 2. If the Legislature, responding to the will of the people, wished to extend the age that individuals are treated as juveniles, rather than adults, in our court system, it knows how to do so. See St. 2013, c. 84, §§ 25, 26, amending G. L. c. 119, § 74 (expanding juvenile jurisdiction to eighteen year olds).

Statutes and regulations throughout our Commonwealth do not even suggest that contemporary standards of decency consider the mandatory imposition of life without parole on adults from eighteen to twenty-one to be cruel or unusual punishment for the crime of murder in the first degree. The sources upon which the court relies do not address contemporary common views, particularly as they relate to offenders within this age range charged with murder.

To begin, the court's reliance on a statute authorizing youthful offenders to be committed to the Department of Youth Services until the age of twenty-one is misplaced. That the Legislature has designated, among several permissible punishments for a child under the age of eighteen who has been adjudicated a youthful offender, commitment to the Department of Youth Services until the age of twenty-one is not relevant to society's views of punishment for those who commit crimes while eighteen or over, let alone the crime of murder. See G. L. c. 119, §§ 54, 58. Rather, this is a sentencing scheme limited to juveniles. Moreover, the court relies on a task force formed by the Legislature on emerging adults to suggest that contemporary standards favor providing distinct treatment to those from eighteen to twenty-one in our criminal legal system. See ante at note 22. However, the task force defined "emerging adults" as individuals from ages eighteen to twenty-four, not twenty-one, and in its report proposing certain changes to our system applicable to this age group, it, importantly, excluded from those changes the crime of murder. Specifically, the task force found, as the science demonstrates, see infra, that individuals ages eighteen to twenty-four, "while possessing the cognitive capacity to make deliberative decisions, are more likely to be more impulsive, less future-oriented, more unstable in emotionally charged settings, and more susceptible to peer

and other outside influences." Emerging Adults in the Massachusetts Criminal Justice System: Report of the Task Force on Emerging Adults in the Criminal Justice System (Feb. 26, 2020), 2020 Senate Doc. No. 2840, at 6-7. Even so, in making its proposals for consideration by the Legislature, the task force provided several options for changes to our current system but excluded from all these proposals individuals of this age group charged with the crime of murder. Some examples included extending the juvenile justice system, except in murder cases; creating a "young adult offender" category, excluding high-level offenses such as murder; providing judges with discretion to refer certain cases to juvenile court, excluding high-level offenses such as murder; and creating an "emerging adult" court session, excluding individuals charged with the crime of murder. Id. at 7, 9-10.

Furthermore, although, as the defendant and Justice Kafker's concurrence point out, the Advisory Sentencing Guidelines (guidelines) recommended by the Massachusetts Sentencing Commission in 2017 provide that research concerning the brain development of emerging adults, which it defines as individuals "up to and including age [twenty-one]" (emphasis added), may be considered at sentencing, the guidelines are intended to assist with discretionary sentencing and are inapplicable to mandatory sentencing provisions such as those

designated for the crime of murder in the first degree. See Massachusetts Sentencing Commission, Advisory Sentencing Guidelines 4, 7-8 (Nov. 2017) ("In making these Sentencing Guidelines advisory, rather than voluntary, the Commission intends to provide a starting point for consideration, and not a constraint on judicial discretion in fashioning an appropriate sentence. . . . [T]he Commission has no authority to abolish minimum mandatory sentences or to change other statutory penalty provisions"). More importantly, the guidelines do not reflect public consensus, nor do they purport to do so.⁴ The guidelines were never enacted by the Legislature, and thus have not taken effect. See G. L. c. 211E, § 3 (a) (1) ("The commission . . . shall recommend sentencing guidelines, which shall take effect only if enacted into law" [emphasis added]).

The suggestion in Justice Kafker's and Justice Wendlandt's concurrences that it is uncritical deference to the Legislature that drives my conclusion that we must uphold the imposition of

⁴ Within the guidelines themselves, the Massachusetts District Attorneys Association responded in objection both to the guidelines being issued to guide judges, without approval and consent from the Legislature, and to the substance of the guidelines based on the district attorneys' "collective experience, the rights of victims of crime, the impact of the opioid epidemic, and [the district attorneys'] vital role as elected officials, protecting the public and representing the public's interest" (footnote omitted). See Massachusetts Sentencing Commission, Advisory Sentencing Guidelines 12-13 (Nov. 2017).

life without parole on individuals from eighteen to twenty-one deeply misunderstands my position. It is our constitutional doctrine looking to contemporary standards of decency that commands that we consider our Legislature's judgments as to what age constitutes adulthood. We must ground our art. 26 proportionality analysis to reflect society's values as expressed through legislative judgments. The objective indicia of contemporary standards of decency in our Commonwealth reflect a societal view that individuals from eighteen to twenty-one are adults, and nothing from these objective sources demonstrates that society's evolving standards of decency consider the mandatory imposition of life without parole to be cruel or unusual when imposed on individuals within this age range who have been convicted of murder in the first degree.

These standards of decency are not unique to the Commonwealth. In ascertaining evolving standards of decency, "judicial opinions and legislative actions at the State, Federal, and international levels help to inform our understanding of what art. 26 protects." Okoro, 471 Mass. at 61. As discussed in detail infra, thirty-six jurisdictions permit the imposition of this punishment for this category of homicide offenders, and only two States before today have concluded, under their own Constitutions, that the mandatory

imposition of life without parole on adults from eighteen to twenty-one is cruel or unusual.⁵

3. Precedent. Precedent relied on by the court is specific to the sentencing of juveniles under the age of eighteen and does not apply to the sentencing of adults. When considering the proportionality of a sentencing practice as it relates to a particular class of offenders, precedent from both the Supreme Court and this court distinguishes juveniles under the age of eighteen from adults eighteen and older.

The Supreme Court first made this distinction explicit in Roper, 543 U.S. 551. Looking to objective indicia of national consensus and societal understandings, supported by scientific and sociological studies, the Court concluded that the imposition of the death penalty on juvenile homicide offenders violates the Eighth Amendment's proscription against cruel and unusual punishment. See id. at 567-570. Importantly, the Court recognized in Roper that the qualities that distinguish juveniles from adults "do not disappear when an individual turns

⁵ The court's reliance on the twenty-three jurisdictions that do not mandate life without parole for any crime regardless of the age of the offender as evidence that contemporary standards of decency deem cruel or unusual the imposition of life without parole for offenders from eighteen to twenty-one for the crime of murder in the first degree confounds logic. To follow the court's reasoning would be to suggest that the sentence of life without parole is cruel or unusual in the eyes of contemporary standards of decency for any offender convicted of the offense.

[eighteen]." Id. at 574. Rather, because "[t]he age of [eighteen] is the point where society draws the line for many purposes between childhood and adulthood," the Court, deferring to societal norms informed by legislative enactments, determined eighteen to be the defining line at which a person may be treated as an adult for the purpose of punishment. Id. at 569, 574, Appendices B-D. The cases following Roper have all operated within this societal line.

In Graham, 560 U.S. 48, the Court next addressed juveniles convicted of nonhomicide offenses sentenced to life imprisonment without the possibility of parole. In answering the question of proportionality, the Court again turned to objective indicia of national consensus, expressed through legislative enactments and State practice, and considered the culpability of juveniles as compared to the severity of the punishment in order to inform its own independent judgment whether the sentencing practice violated the Eighth Amendment. Id. at 61-63, 67. This analysis led the Court to conclude that, for juveniles who have not committed homicide offenses, the imposition of life without parole is cruel and unusual under the Eighth Amendment. Id. at 82.

Miller, 567 U.S. at 465, which followed Graham, formed the basis for our jurisprudence in the Commonwealth concerning proportionality as it relates to sentencing practices applied to

juveniles. In Miller, the Supreme Court held that "mandatory life without parole for those under the age of [eighteen] at the time of their crimes violates the Eighth Amendment's prohibition on 'cruel and unusual punishments.'" Id. The Court in Miller predicated its conclusion on two strands of precedent: the first, including Roper and Graham and their consideration of the culpability of juveniles in light of the severity of the sentences imposed; and the second, involving the prohibition against the mandatory imposition of capital punishment due to the absence of consideration of the individual characteristics of the offender and the details of the offense. See id. at 470.

From Roper and Graham's teachings, the Court declared in Miller that "children are constitutionally different from adults for purposes of sentencing." Miller, 567 U.S. at 471. This declaration rests firmly on principles of common sense, science, and social science regarding children, their unique characteristics, and how they have been treated in the law. Id. at 471-472, 481. Based on these principles regarding children, considered in conjunction with cases where individualized sentencing is required before the death penalty is imposed, the Court concluded that the Eighth Amendment requires an individualized assessment of youth and its attendant

characteristics before such a harsh penalty may be imposed on a juvenile homicide offender.⁶ See id. at 475-477, 479-480.

In so ruling in Miller, the Court emphasized that its holding was limited to children, and that its precedent on adult sentencing was not applicable to the sentencing of juvenile offenders. Id. at 481 ("Harmelin[, which addressed constitutionality of life without parole sentence for adult convicted of possessing 672 grams of cocaine,] had nothing to do with children and did not purport to apply its holding to the sentencing of juvenile offenders"). Indeed, as the Court noted, "a sentencing rule permissible for adults may not be so for children." Id. The Court cited several examples of punishments that "generally comport[] with the Eighth Amendment" -- except when it comes to children -- and emphasized that "'[o]ur history is replete with laws and judicial recognition' that children cannot be viewed simply as miniature adults.'" Id., quoting J.D.B. v. North Carolina, 564 U.S. 261, 274 (2011). And thus,

⁶ Because the decision in Miller did not categorically bar a penalty for a class of offenders but was based on principles established in Roper and Graham, as well as the Supreme Court's individualized sentencing cases, the Court relied less on "objective indicia of society's standards" to gauge a national consensus. See Miller, 567 U.S. at 483. The Court, nevertheless, surveyed the various jurisdictions and counted twenty-nine (twenty-eight States and the Federal government) that mandatorily imposed life without parole on juvenile homicide offenders. Id. at 482-483 & n.9.

the Court noted, "it is the odd legal rule that does not have some form of exception for children."⁷ Miller, supra.

With this Supreme Court precedent concerning juvenile sentencing as the foundation, we decided Diatchenko I, 466 Mass. at 657-658. Our inquiry in Diatchenko I was limited and precise, given Miller's prior determination that the mandatory imposition of life without the possibility of parole for juvenile offenders was disproportionate under the Eighth Amendment. See Diatchenko I, supra at 667 ("Pursuant to Miller, [567 U.S. at 479, 489], we conclude that this mandatory sentence violates both the Eighth Amendment prohibition against 'cruel and unusual punishment[]' and the analogous provision of the Massachusetts Declaration of Rights set forth in art. 26"). The remaining question for us in Diatchenko I was whether an individualized assessment of a juvenile offender could ever

⁷ It is worth noting that when the Supreme Court has assessed whether punishment is barred by the Eighth Amendment when applied to a category of offenders who are not juveniles, it has placed great emphasis on contemporary standards of decency, gleaned from legislative judgments. See Atkins, 536 U.S. at 313-316, 321 (death penalty for intellectually disabled unconstitutional, determined by "review[ing] the judgment of legislatures that have addressed the suitability of imposing the death penalty on the [intellectually disabled] and then consider[ing] reasons for agreeing or disagreeing with their judgment"); Ford v. Wainwright, 477 U.S. 399, 406-410 (1986) (death penalty for insane prisoners unconstitutional where execution of them was condemned at common law, and at time of decision "no State in the Union permit[ted] the execution of the insane").

constitutionally justify the imposition of life without parole under art. 26. Id. at 668. We concluded that the answer to that singular question was no. Id. at 670-671. In light of the unique characteristics of juvenile offenders, we concluded that an individualized assessment could never result in a determination that a juvenile was "irretrievably depraved," at the time of sentencing, such that "a sentence of life without parole should be imposed on a juvenile homicide offender." Id. at 670, quoting Roper, 543 U.S. at 570.

While we relied on "current scientific research on adolescent brain development," combined with "the myriad significant ways that this development impacts a juvenile's personality and behavior," in Diatchenko I, 466 Mass. at 669, to make this determination, our focus was on a legislatively defined category of individuals constitutionally deserving of special treatment. We did not look to science to carve out this group; legislation had already defined it. See id. at 659 n.8. We determined that, "under art. 26, the 'unique characteristics of juvenile offenders' should weigh more heavily in the proportionality calculus than the United States Supreme Court required under the Eighth Amendment," Commonwealth v. Perez, 477 Mass. 677, 683 (2017), S.C., 480 Mass. 562 (2018), quoting Diatchenko I, supra at 671, and we used scientific research to augment this weighing.

Two features of our decision in Diatchenko I render it unsuited and unable to answer the question before us today. The first, and most pronounced, reason: it was limited to juveniles under the age of eighteen. See Diatchenko I, 466 Mass. at 659 n.8. More specifically, the decision was limited to a class of offenders predefined by the Legislature as juveniles. Indeed, the decision in Diatchenko I made painstakingly clear that its holding was restricted to juvenile offenders under the age of eighteen.⁸ Justice Kafker's concurrence poses the question

⁸ See Diatchenko I, 466 Mass. at 658-659 ("We further conclude that the mandatory imposition of a sentence of life in prison without the possibility of parole on individuals who were under the age of eighteen when they committed the crime of murder in the first degree violates the prohibition against 'cruel or unusual punishments' in art. 26 of the Massachusetts Declaration of Rights, and that the discretionary imposition of such a sentence on juvenile homicide offenders also violates art. 26 because it is an unconstitutionally disproportionate punishment when viewed in the context of the unique characteristics of juvenile offenders" [emphases added]); id. at 669 ("In the present circumstances, the imposition of a sentence of life in prison without the possibility of parole for the commission of murder in the first degree by a juvenile under the age of eighteen is disproportionate not with respect to the offense itself, but with regard to the particular offender" [emphasis added]); id. at 671 ("With current scientific evidence in mind, we conclude that the discretionary imposition of a sentence of life in prison without the possibility of parole on juveniles who are under the age of eighteen when they commit murder in the first degree violates the prohibition against 'cruel or unusual punishment[]' in art. 26" [emphasis added]); id. ("Given the unique characteristics of juvenile offenders, they should be afforded, in appropriate circumstances, the opportunity to be considered for parole suitability" [emphasis added]); id. at 673 ("In light of our conclusion that the imposition of a sentence of life in prison without the possibility of parole on juvenile offenders who are under the

"whether there is a meaningful constitutional difference between overruling the Legislature's decision that it is permissible to sentence juveniles to life in prison without the possibility of parole and overruling the Legislature's decision that it is permissible to sentence eighteen through twenty year olds to life in prison without the possibility of parole." See ante at . But Diatchenko I answers that question; there is. The decision in Diatchenko I rested on the recognition that juveniles are "constitutionally different from adults for purposes of sentencing." Id. at 670, 674, quoting Miller, 567 U.S. 460, 471. See Diatchenko I, supra at 675 (Lenk, J., concurring) ("Pivotal to this holding . . . is the recognition that 'children are constitutionally different from adults for purposes of sentencing'" [citation omitted]). In Diatchenko I, we did not venture to determine who qualified as a juvenile or look to science to draw the line between childhood and adulthood; instead, we relied on the prefixed line established by society and the Legislature to issue our holding. See id. at 659 n.8. Where that prefixed line places eighteen, nineteen, and twenty year olds on the side of adulthood, and thus not

age of eighteen when they commit the crime of murder in the first degree is unconstitutional, the language in the fourth sentence of G. L. c. 265, § 2, which sets forth the exception to parole eligibility, is invalid as applied to juvenile homicide offenders" [emphases added]).

entitled to distinct constitutional treatment, Diatchenko I does not dictate the result here. As the Supreme Court in Miller underscored, precedent relating to adult sentencing is not applicable to juveniles, and inversely, precedent relating to juvenile sentencing is not applicable to adults. See Miller, 567 U.S. at 481.

The second reason Diatchenko I cannot resolve the categorical question in this case relates to the court's inquiry there and the reliance on science to assess proportionality. As discussed infra, science is important when considering proportionality as it relates to the offender. Diatchenko I, 466 Mass. at 669-670, establishes that. But, as the court, the concurrences, and the parties all must and, at least implicitly, do acknowledge, science alone cannot determine whether a sentence is constitutionally disproportionate under art. 26. See ante at note 30 (court's opinion), note 9 (Kafker, J., concurring), note 7 (Wendlandt, J., concurring). Because the Supreme Court in Miller had already undertaken a proportionality analysis, considering primarily precedent, augmented by science and contemporary standards, and it deemed the mandatory imposition of life without parole on juveniles unconstitutional, our own proportionality analysis was abbreviated and related only to the discretionary imposition of that sentence. Diatchenko I, supra at 670-671. We relied on Miller, as well as

its consideration of Graham and Roper, for the proportionality calculus as it relates to the mandatory imposition of life without parole on juveniles. But in light of our determination that art. 26 is more protective than the Eighth Amendment, we looked to science, as well as sociological understandings, concerning youth to render our decision regarding the discretionary imposition of life without parole on juveniles, and only on juveniles. Diatchenko I, supra.

4. Science. Importantly, we have never suggested that scientific research untethered to any legislation can create a new category of individuals entitled to special treatment under our Constitution. In creating such a category, the court impermissibly engages in legislative line drawing, detached from our constitutional analysis. To demonstrate this, one need look no further than the location of the line drawn. The court includes within its category of "emerging adults" individuals from eighteen to twenty-one. See ante at note 1. This line, once framed by the defendant as being properly placed at the age of twenty-two, was urged to be drawn at twenty-one on remand when the case was paired with Commonwealth v. Robinson, 493 Mass. (2023).

Although the judge's factual findings are limited to individuals eighteen through twenty years old, much of the scientific expert testimony and studies supporting those

findings included individuals twenty-one years of age (and in some instances older) as it relates to impulsivity, self-regulation in an emotionally aroused state, sensation seeking, and brain plasticity. Both of the experts who testified for the defendant, Drs. Adriana Galván and Robert Kinscherff, defined "young adults" or "late adolescents" to include twenty-one year old individuals, and their testimony concerning brain maturity often extended to those individuals. While Dr. Laurence Steinberg purported to limit his testimony to eighteen, nineteen, and twenty year olds, the research articles in the record that he coauthored, and which undergirded his testimony, grouped together individuals eighteen through twenty-one years

old,⁹ and in some instances through twenty-two years old.¹⁰

Galván was also involved in the studies that routinely grouped

⁹ See Breiner et al., Combined Effects of Peer Presence, Social Cues, and Rewards on Cognitive Control in Adolescents, 60 *Developmental Psychobiology* 292, 292-294 (2018) ("The final participant sample consisted of 71 adolescents [ages 13-17 years old, M = 15.48, SD = 1.24; 33 males, 38 females]; 48 young adults [ages 18-21 years-old, M = 19.64, SD = 1.03; 25 males, 23 females]; and 57 adults [ages 22-25 years-old, M = 23.34, SD = 1.01; 28 males, 29 females]"); Cohen et al., When Is an Adolescent an Adult? Assessing Cognitive Control in Emotional and Nonemotional Contexts, 27 *Psychol. Sci.* 549, 550 (2016) ("A total of 110 usable scans were included in the final analyses reported here [41 teens -- 23 females and 18 males, ages 13-17 years, M = 16.19, SD = 1.20; 35 young adults -- 17 females and 18 males, ages 18-21 years, M = 19.88, SD = 1.09; 34 adults -- 17 females and 17 males, ages 22-25 years, M = 24.08, SD = 1.04]"); Icenogle et al., Adolescents' Cognitive Capacity Reaches Adult Levels Prior to Their Psychosocial Maturity: Evidence for a "Maturity Gap" in a Multinational, Cross-Sectional Sample, 43 *Law & Hum. Behav.* 69, 74 (2019) (participants divided into seven age groups: "10-11 years, 12-13 years, 14-15 years, 16-17 years, 18-21 years, 22-25 years, and 26-30 years"); Rudolph et al., At Risk of Being Risky: The Relationship Between "Brain Age" under Emotional States and Risk Preference, *Developmental Cognitive Neurosci.*, vol. 24, 2017, at 93-94 ("all participants -- M = 19.05, SD = 3.91; 11 children -- 6 female, ages 10-12 years, M = 11.55, SD = 0.89; 80 teens -- 45 female, ages 13-17 years, M = 15.77, SD = 1.44; 58 young adults -- 33 females, ages 18-21 years, M = 19.86, [SD = 1.11]; 63 adults -- 34 females, ages 22-25 years, M = 23.7, SD = 1.03"); Steinberg et al., Around the World, Adolescence Is a Time of Heightened Sensation Seeking and Immature Self-Regulation, *Developmental Sci.*, vol. 21, Mar. 2018, at 6 ("each study site attempted to recruit at least 30 males and 30 females from each of seven age groups: 10-11 years, 12-13 years, 14-15 years, 16-17 years, 18-21 years, 22-25 years, and 26-30 years").

¹⁰ See Chein et al., Peers Increase Adolescent Risk Taking by Enhancing Activity in the Brain's Reward Circuitry, *Developmental Sci.*, vol. 14, Mar. 2011, at 3 ("Data from 40 subjects [14 adolescents -- eight female, ages 14-18 years, M = 15.7, SD = 1.5; 14 young adults -- seven female, ages 19-22 years, M = 20.6, SD = 0.9; and 12 adults -- six female, ages 24-

eighteen through twenty-one year old individuals together. And, notably, her testimony concerning brain plasticity -- the ability to change in response to different circumstances or environment -- indicated development until the mid-twenties. If twenty-one year old individuals, and even beyond, suffer from the same brain deficiencies as eighteen, nineteen, and twenty year old individuals, by the court's logic, the mandatory imposition of life without parole on them must too be unconstitutional. However, because the defendant cut off his request for relief at the age of twenty-one, the court does not conclude as much. Accordingly, not only is the line at twenty-

29 years, $M = 25.6$, $SD = 1.9$] were included in analyses"); Gardner & Steinberg, Peer Influence on Risk Taking, Risk Preference, and Risky Decision Making in Adolescence and Adulthood: An Experimental Study, 41 *Developmental Psychol.* 625, 625-627 (2005) ("In this study, 306 individuals in 3 age groups -- adolescents [13-16], youths [18-22], and adults [24 and older] -- completed 2 questionnaire measures assessing risk preference and risky decision making, and 1 behavioral task measuring risk taking"); Silva et al., Adolescents in Peer Groups Make More Prudent Decisions When a Slightly Older Adult Is Present, 34 *Psychol. Sci.* 322, 323 (2016) ("In the present study, we investigated how the presence of peers affects decision making among late adolescents [ages 18-22] and whether the previously documented effect of peers on adolescents' risk taking can be reduced or reversed by the presence of a slightly older adult [age 25-30]"); Silva et al., Peers Increase Late Adolescents' Exploratory Behavior and Sensitivity to Positive and Negative Feedback, 26 *J. Res. on Adolescence* 696, 697 (2015) ("We focus on late adolescents [ages 18-22] because there is considerable evidence that the prevalence of certain real-life, high-stakes risk behaviors [e.g., binge drinking, substance use, reckless driving, and unprotected sex] is highest among 18- to 22-year olds").

one not crafted by the Legislature or society, as it must be, it is not even scientifically crafted. In this area of crime and punishment particularly, the court must resist judicially crafting this line. See Commonwealth v. Brown, 466 Mass. 676, 685 (2013), S.C., 474 Mass. 576 (2016) (expressing "concern for judicial law-making" in area of "defining crimes and their punishments" [citation omitted]).

The problem with the court defining this category of individuals based on science is not only that the science it uses applies beyond the chronological category that the court creates, but also that neuroscience does not limit itself to young adults. If we look only to neuroscience to determine who is or who is not entitled to distinct constitutional treatment for sentencing purposes, what categories are off limits? The court, purportedly based on science, creates the category of "emerging adults," but what about declining adults with dementia; those with early-onset Alzheimer's disease; those with brain tumors or genetic deficiencies; and those with a low intelligence quotient, but not low enough to constitute an intellectual disability?

In advocating against unilaterally drawing the line of adulthood beyond the age of eighteen -- where the Legislature and society have placed it -- I do not discount that the current scientific research on the brain development of individuals ages

eighteen to twenty-one (and, in some instances, to mid-twenties) shows deficiencies in the ability to self-regulate in emotionally arousing situations, as well as increased sensation seeking and susceptibility to peer pressure. Nor do I disregard the research on developmental brain plasticity and its continuation into an individual's mid-twenties, suggesting a greater capacity for change. The judge found the scientific experts to be reliable. Policy considerations, however, are for the Legislature. Our role in this area of crime and punishment is limited, and we must remain disciplined when assessing whether the punishment, chosen by the Legislature, is so disproportionate that it "shocks the conscience and offends fundamental notions of human dignity" to reach the level of cruel or unusual. Cepulonis, 384 Mass. at 497, quoting Jackson, 369 Mass. at 910.

The challenged punishment in this case is not. Contemporary standards of decency, ascertained properly through objective sources, consider these individuals adults and do not remotely suggest a societal attitude or consensus that mandatorily imposing life without the possibility of parole on such individuals when they commit murder in the first degree is cruel or unusual. As a result, precedent relating to the sentencing of juveniles, who are constitutionally different from adults for purposes of sentencing, is inapplicable. Scientific

research cannot create a category of individuals entitled to specialized constitutional treatment, and indeed, it does not support the category created by the court. Further, when we look beyond just the nature of the offender and consider other factors relevant to the proportionality analysis, see infra, it becomes clear that this punishment does not violate art. 26.

5. Applicability of tripartite proportionality analysis.

Although the considerations on which the court bases its decision -- contemporary standards of decency, science, and precedent -- do not support its conclusion that the mandatory imposition of life without parole on individuals from eighteen to twenty-one reaches the level of constitutional disproportionality, I would not abandon application of the tripartite analysis for evaluating categorical challenges to the proportionality of a sentencing practice. Contemporary standards, science, and precedent are all important to assessing proportionality, but, as the court considers them, each focuses only on the nature of the offender. The proportionality analysis under art. 26 requires a more comprehensive inquiry. See Commonwealth v. Sharma, 488 Mass. 85, 89, quoting Commonwealth v. Concepcion, 487 Mass. 77, 86, cert. denied, 142 S. Ct. 408 (2021) (tripartite analysis "requires [1] an 'inquiry into the nature of the offense and the offender in light of the degree of harm to society,' [2] 'a comparison between the

sentence imposed here and punishments prescribed for the commission of more serious crimes in the Commonwealth,' and [3] 'a comparison of the challenged penalty with the penalties prescribed for the same offense in other jurisdictions'").

We adopted the tripartite analysis in Jackson, 369 Mass. at 910, and have, thus far, not confined it to individual proportionality challenges. As the court recognizes, see ante at note 12, we have on multiple occasions used the tripartite analysis to evaluate categorical challenges to the proportionality of sentencing provisions based on the nature of the offense, without considering the individual circumstances of an offender sentenced according to those provisions. See Commonwealth v. Therriault, 401 Mass. 237, 239-240 (1987) (challenge to one-year minimum mandatory prison term for homicide by motor vehicle while intoxicated); Opinions of the Justices, 378 Mass. at 829 (facial examination whether proposed "bills' mandatory sentencing provisions -- including the requirement that a twenty-five year mandatory sentence in State prison be imposed on persons found manufacturing, distributing dispensing, or possessing with intent to distribute, certain narcotics having a street value in excess of \$25,000" -- were constitutionally disproportionate); Jackson, supra at 909 (challenge to one-year mandatory sentence imposed for carrying firearm without license).

Additionally, we have used the tripartite analysis to hold that a sentencing practice is constitutionally disproportionate, at least presumptively, when applied to an entire category of individuals. See Perez, 477 Mass. at 686 (concluding, based on application of tripartite analysis, that "a juvenile defendant's aggregate sentence for nonmurder offenses with parole eligibility exceeding that applicable to a juvenile defendant convicted of murder is presumptively disproportionate," and that only after hearing according to Miller, 567 U.S. at 479, could that presumption be rebutted).

While, in Diatchenko I, we did not expressly state whether we were or were not considering the tripartite analysis, our conclusion was based on the considerations associated with the first prong of the tripartite analysis: "the imposition of a sentence of life in prison without the possibility of parole for the commission of murder in the first degree by a juvenile under the age of eighteen is disproportionate not with respect to the offense itself, but with regard to the particular offender" (emphasis added). See Diatchenko I, 466 Mass. at 669.

Importantly, in cases where we have explicitly applied the tripartite analysis, we have cited this portion of our decision in Diatchenko I for its applicability to the first prong of the tripartite analysis. See Concepcion, 487 Mass. at 88; Commonwealth v. LaPlante, 482 Mass. 399, 406 (2019). See also

Perez, 477 Mass. at 684-685 (discussing applicability of Diatchenko I's reasoning to first prong of tripartite framework).

Diatchenko I's reliance on just one prong of the tripartite analysis to assess proportionality is not unique. In addition to Diatchenko I, we have made determinations, both in favor and against proportionality, by analyzing less than all three prongs of the tripartite test. See Perez, 477 Mass. at 685-687 (because sentence in that case was disproportionate under first two prongs of tripartite analysis, court "need not discuss the third prong"). See also LaPlante, 482 Mass. at 404 n.4 (where no "more serious crimes" to be compared with defendant's, "case defie[d] direct application of the second . . . prong" of tripartite analysis). That all three prongs of the tripartite analysis do not fit neatly in every circumstance does not justify now abandoning its application for categorical challenges.¹¹

I would not discard this well-established framework, particularly in cases like this. The tripartite analysis was adopted to cabin the "inherent subjectivity" involved in

¹¹ California, the jurisdiction from which we adopted the tripartite analysis, has applied the analysis to assess whether, categorically, the imposition of life without parole on offenders younger than sixteen convicted of kidnapping is disproportionate under its own State Constitution. See In re Nuñez, 173 Cal. App. 4th 709, 725-731 (2006).

assessing proportionality. See Opinions of the Justices, 378 Mass. at 830. See Harmelin, 501 U.S. at 986 ("the proportionality principle becomes an invitation to imposition of subjective values"). Where the analysis involves questions, such as whether a punishment "shocks the conscience," "offends fundamental notions of human dignity," or is in accord with contemporary standards of human decency, the issue of disproportionality is vulnerable to a subjective approach; the framework was developed intentionally to combat subjectivity and create objective criteria to guard against improper judicial encroachment on exclusively legislative territory. See Opinions of the Justices, 378 Mass. at 830; Jackson, 369 Mass. at 910. See also Atkins, 536 U.S. at 312, quoting Harmelin, supra at 1000 ("Proportionality review under those evolving standards should be informed by 'objective factors to the maximum possible extent'").

The issue of subjectivity is central to my concern with the court's decision not to apply the tripartite analysis. When we deviate from the objective framework developed to mitigate subjectivity, we risk infusing our own personal values into the open-ended provisions of the Constitution, which fosters mistrust that threatens the continued vitality of judicial review and an abiding respect for the judiciary. With this in

mind, I would apply the doctrinal framework adopted specifically to guard against these concerns.

a. First prong. Under the first prong of the tripartite analysis for analyzing proportionality, we consider "the nature of the offense and the offender in light of the degree of harm to society." Jackson, 369 Mass. at 910. The considerations of contemporary standards of decency, science, and precedent addressed supra, and addressed by the court ante, examine proportionality as it relates to the nature of the offender. These considerations, however, do not consider the nature of the offense in light of the harm to society, which must also take into account the Legislature's legitimate reasons for imposing such a punishment. See Jackson, supra ("The penological purposes of the prescribed punishment are also relevant to this analysis . . .").

The nature of the offense of murder and the harm the crime inflicts on society and its victims warrant a punishment commensurate with the crime. Cf. Jackson, 369 Mass. at 910. "Clearly the severity of the penalty, in the case of a serious offense, is not enough to invalidate it where the nature of the penalty is rationally directed to achieve the legitimate ends of punishment." Id., quoting Trop v. Dulles, 356 U.S. 86, 111 (1958) (Brennan, J., concurring). Imposing a punishment commensurate with the crime "reflects society's and the victim's

interests in seeing that the offender is repaid for the hurt he caused." Kennedy v. Louisiana, 554 U.S. 407, 442 (2008).

"Society is entitled to impose severe sanctions . . . to express its condemnation of the crime and to seek restoration of the moral imbalance caused by the offense." Graham, 560 U.S. at 71.

The penological justifications for imposing life without the possibility of parole are incapacitation, deterrence, and retribution. See Diatchenko I, 466 Mass. at 670-671. Since the punishment the Legislature has chosen to further these goals neither "shocks the conscience" nor offends "contemporary standards of decency which mark the progress of society" (citations omitted), id. at 669, it is not within our authority to question the wisdom of this decision, so long as the sentence is not "so totally without penological justification that it results in the gratuitous infliction of suffering," Gregg, 428 U.S. at 183. See id. at 182-183 ("we cannot invalidate a category of penalties because we deem less severe penalties adequate to serve the ends of penology" [citation and quotation omitted]).

b. Second prong. The second prong involves "a comparison between the sentence imposed here and punishments prescribed for the commission of more serious crimes in the Commonwealth." Sharma, 488 Mass. at 89, quoting Concepcion, 487 Mass. at 86. As with other cases where we have applied the tripartite

framework, because the crime of murder in the first degree is the most serious offense in the Commonwealth, and the punishment of life without the possibility of parole, which is imposed mandatorily for this crime, is the most severe punishment in the Commonwealth, this case "defies direct application of the second . . . prong" of the tripartite analysis. LaPlante, 482 Mass. at 404 n.4. We turn then to the third prong.

c. Third prong. Under the third prong of the tripartite analysis, we compare "the challenged penalty with the penalties prescribed for the same offense in other jurisdictions."

Sharma, 488 Mass. at 89, quoting Concepcion, 487 Mass. at 86.

The court cites at least ten States that currently mandate the imposition of life without the possibility of parole on all adult offenders convicted of an offense equivalent to murder in the first degree in the Commonwealth -- a count that does not include the Federal government, which also does so. See ante at note 26. One State, Michigan, mandatorily imposes life without the possibility of parole for offenders over the age of eighteen convicted of such a crime. See People v. Parks, 510 Mich. 225, 268 (2022).¹²

¹² And at least nine more States mandate a sentence of life without the possibility of parole for adult offenders adjudicated guilty of murder under certain circumstances. The Michigan Supreme Court cited six such jurisdictions: "California, Cal. Penal Code [§] 190.2; Connecticut, Conn. Gen. Stat. [§§] 53a-35a and 53a-54b; Hawaii, Haw. Rev. Stat.

While not legislatively mandated, sixteen States and the District of Columbia authorize the imposition of life without the possibility of parole on adult offenders convicted of a crime equivalent to what the Commonwealth defines as murder in the first degree,¹³ while others authorize similarly harsh

[§§] 706-656 and 706-657; Kansas, Kan. Stat. Ann. [§§] 21-6620, 21-5401(a) (6), and 21-6617; Texas, Tex. Penal Code Ann. [§§] 12.31 and 12.32; and Vermont, Vt. Stat. Ann., tit. 13, §§ 2303 and 2311." Parks, 510 Mich. at 263 n.16. I also found the following: New Jersey, N.J. Stat. Ann. § 2C:11-3; Oregon, Or. Rev. Stat. § 163.107; and Virginia, Va. Code Ann. §§ 18.2-10, 18.2-31, 18.2-32. Indeed, some of these States impose life imprisonment without the possibility of parole on less egregious grounds than the standard in Massachusetts of deliberate premeditation; extreme atrocity or cruelty; or actual malice in the commission or attempted commission of a crime punishable with life imprisonment.

¹³ These jurisdictions include Georgia, Ga. Code Ann. § 16-5-1; Indiana, Ind. Code § 35-50-2-3; Kentucky, Ky. Rev. Stat. Ann. §§ 507.020, 532.030; Maine, Me. Rev. Stat. tit. 17-A, § 1603, § 2314; Montana, Mont. Code Ann. § 45-5-102(2); Nevada, Nev. Rev. Stat. § 200.030; New Mexico, N.M. Stat. Ann. §§ 30-2-1, 31-18-14; North Dakota, N.D. Cent. Code §§ 12.1-16-01, 12.1-32-01; Oklahoma, Okla. Stat. tit. 21, § 701.9; South Carolina, S.C. Code Ann. § 16-3-20; Tennessee, Tenn. Code Ann. § 39-13-202; Vermont, Vt. Stat. Ann. tit. 13, § 2303; West Virginia, W. Va. Code §§ 61-2-2, 62-3-15; and Wyoming, Wyo. Stat. Ann. § 6-2-101. Additionally, the District of Columbia, Hawaii, and Illinois permit the imposition of life without parole for murders committed in heinous, atrocious, or cruel circumstances comparable to murder in the first degree in the Commonwealth under the theory of extreme atrocity or cruelty. See D.C. Code § 22-2104.01 (where murder was especially heinous, atrocious, or cruel); Haw. Rev. Stat. § 706-657 (where murder in second degree was especially heinous, atrocious, or cruel); 730 Ill. Comp. Stat. 5/5-8-1 (where "murder was accompanied by exceptionally brutal or heinous behavior indicative of wanton cruelty").

sentences for the equivalent crime.¹⁴ Accordingly, when viewed in total, thirty-six jurisdictions (thirty-four States, the Federal government, and the District of Columbia) legislatively authorize the imposition of life without the possibility of parole for adult offenders -- including those ages eighteen, nineteen, and twenty -- convicted of the equivalent of murder in the first degree. See Jackson, 369 Mass. at 913 (considering States that permit same or similar punishment, even if not mandated).

No jurisdiction has categorically prohibited by judicial decision the imposition of this penalty for homicide offenders eighteen and older as cruel or unusual punishment. While, as the court notes, Washington and Michigan have declared, under their own State Constitutions, that the mandatory imposition of life without parole on eighteen through twenty year old individuals (Washington) and eighteen year old individuals (Michigan), respectively, is unconstitutional, see Matter of the Personal Restraint of Monschke, 197 Wash. 2d 305, 312 (2021);

¹⁴ For example, Alaska and New Jersey both impose a minimum of thirty years imprisonment without parole eligibility for murder in the first degree. See Alaska Stat. § 12.55.125; N.J. Stat. Ann. § 2C:11-3.

Parks, 510 Mich. at 268, this hardly represents a consistent trend.¹⁵ See ante at .

Where the challenged penalty in this case, when imposed on individuals from eighteen to twenty-one, is permitted by thirty-six jurisdictions across the country and is specifically mandated in eleven jurisdictions; where other jurisdictions impose similarly harsh penalties for similar crimes; and where no other jurisdiction has interpreted its Constitution as

¹⁵ Moreover, both Michigan and Washington have constitutional requirements that differ from our own. Michigan, for instance, permits juveniles to be sentenced to life without the possibility of parole following an individualized hearing. See People v. Taylor, 510 Mich. 112, 128 (2022). Thus, in imposing such a requirement for eighteen year old offenders under its State Constitution, the Michigan Supreme Court looked to Miller for guidance, without having to wrestle with Diatchenko-like precedent deeming such discretionary sentencing unconstitutional. See Parks, 510 Mich. at 265-266. While the Washington Supreme Court has interpreted its Constitution to bar both the mandatory and discretionary imposition of life without parole for juvenile offenders, as we have, in the case in which that court permitted such a punishment to be imposed on eighteen to twenty year old offenders after an individualized hearing, unlike in this case, there was no argument that the punishment should be categorically barred as unconstitutional for that class of offenders. See Matter of the Personal Restraint of Monschke, 197 Wash. 2d at 325. Moreover, in making such a determination, the Washington Supreme Court declined to apply either of its constitutional tests for assessing whether a punishment is categorically cruel under its Constitution. Id. at 312. The court's own precedent in State v. Fain, 94 Wash. 2d 387 (1980), and State v. Bassett, 192 Wash. 2d 67 (2018), called for the application of a proportionality test and a categorical bar analysis when considering cruelty. The court deferred to neither of these controlling doctrines in making its decision. Matter of the Personal Restraint of Monschke, supra. Thus, its constitutional analysis as it relates to this punishment for this class of offenders diverges significantly from our own.

requiring mandatory parole eligibility for adults from eighteen to twenty-one, the disparity between Massachusetts and others reflects nothing "more than different exercises of legislative judgment . . . a difference between unrestrained power and that which is exercised under the spirit of constitutional limitations formed to establish justice." Jackson, 369 Mass. at 914, quoting Weems, 217 U.S. at 381. It does not lend itself to a conclusion that the imposition of life without parole on individuals eighteen, nineteen, and twenty years old, who have been convicted of murder in the first degree, violates art. 26. See Cepulonis, 384 Mass. at 499 (where difference between punishment in Massachusetts and "that prescribed in other States is merely one of degree[,] [i]t is not violative of art. 26 or of the Eighth Amendment").

Conclusion. As the judiciary, we must proceed with extreme restraint when exercising our power to review punishment designated by the Legislature to determine whether it exceeds the bounds of art. 26's requirements. Applying the analysis specifically established to cabin our review when assessing proportionality under art. 26, the punishment that the Legislature prescribed in this case, when applied to individuals from eighteen to twenty-one, is not so disproportionate to this class of offenders, nor the crime of murder in the first degree, particularly in light of the harm caused to society by murder in

the first degree and the Legislature's legitimate justifications for imposing such a punishment. In the Commonwealth, individuals eighteen and older are considered adults; they receive the rights and consequences associated with adulthood; and the contemporary standards of decency, expressed through legislation, demonstrate support for this severe punishment for this most severe crime.

While the scientific research concerning the brain function and development of eighteen through twenty-five year old individuals may cause the Legislature to consider raising the age of individuals convicted of murder in the first degree who are entitled to parole eligibility, where, under our constitutional framework, the punishment is not "so disproportionate" that it "shocks the conscience and offends fundamental notions of human dignity," Cepulonis, 384 Mass. at 497, quoting Jackson, 369 Mass. at 910, it does not violate art. 26's proscription against cruel or unusual punishment. I respectfully dissent.

CYPHER, J. (dissenting). A significant amount of time and energy has been expended to prove through science what the Legislature knew when it promulgated its first statute concerning juveniles: young males take more risks and are more impulsive than older males. See R.S. (1836), c. 143, § 18 (providing that certain children convicted of offense punishable by incarceration in State prison shall instead serve sentence in house of correction or county jail); Governor's Anti-Crime Council, Juvenile Code Study and Revision Project, History of Massachusetts Statutes Relating to Delinquent Youth 1 (July 1985) ("[The] pattern of treating juvenile offenders [in Massachusetts] differently than their adult counterparts began" with adoption of Revised Statutes of 1836).

Whether this court should eliminate the imposition of mandatory sentences of life imprisonment without the possibility of parole for those convicted of murder in the first degree who were from age eighteen to twenty at the time of the crime implicates many important considerations. The most significant consideration for us in this case is whether the sentencing scheme violates art. 26 of the Massachusetts Declaration of Rights, the prohibition against cruel or unusual punishment. If it does not violate art. 26, then we must admit that, however we may view life sentences without parole, for any age over seventeen or as mandatory sentences for any crime, we are not

the appropriate branch to change the sentence. If we are to do so, we violate art. 30 of the Massachusetts Declaration of Rights, the separation of powers doctrine.

I fully agree with the principal arguments outlined in Justice Lowy's dissent, ante; namely, it is the Legislature, not the judiciary, that prescribes punishment, Opinions of the Justices, 378 Mass. 822, 830 & n.7 (1979), and the Legislature's choice of punishment for adults convicted of murder in the first degree, i.e., imprisonment for life without the possibility of parole, is not so disproportionate to the offense as to rise to the level of cruel or unusual punishment under art. 26. See G. L. c. 127, § 133A (parole eligibility disallowed for those "serving a life sentence for murder in the first degree who had attained the age of [eighteen] years" at time of crime); Diatchenko v. District Attorney for the Suffolk Dist., 466 Mass. 655, 669 (2013) (Diatchenko I), S.C., 471 Mass. 12 (2015). In addition, I agree that the tripartite analysis for proportionality, as adopted in Commonwealth v. Jackson, 369 Mass. 904, 910 (1976), is the proper framework for evaluating categorical challenges to a sentencing scheme. See Commonwealth v. Concepcion, 487 Mass. 77, 86, cert. denied, 142 S. Ct. 408 (2021), quoting Cepulonis v. Commonwealth, 384 Mass. 495, 497-498 (1981) (determination whether sentence is disproportionate to crime requires "[1] an 'inquiry into the nature of the

offense and the offender in light of the degree of harm to society,' [2] 'a comparison between the sentence imposed here and punishments prescribed for the commission of more serious crimes in the Commonwealth,' and [3] 'a comparison of the challenged penalty with the penalties prescribed for the same offense in other jurisdictions'").

Indeed, the virtue of the tripartite analysis is that it is flexible enough to accommodate "softer," offender-specific considerations, see Commonwealth v. Perez, 477 Mass. 677, 684-685 (2017), S.C., 480 Mass. 562 (2018), quoting Diatchenko I, 466 Mass. at 670 (factoring "diminished culpability and greater prospects for reform" of juvenile defendant into first prong of tripartite analysis), while offering a (mostly) objective framework for assessing proportionality, see Opinions of the Justices, 378 Mass. at 830 (tripartite test created to mitigate against "the inherent subjectivity" that "shocks the conscience" standard invariably entails).¹

¹ In certain circumstances, one or more of the three prongs may be inapt. The crime of murder in the first degree provides an illustrative example. See Commonwealth v. LaPlante, 482 Mass. 399, 404 n.4 (2019) (case involving juvenile convicted of multiple homicide "defies direct application of second Cepulonis prong" because there are no "more serious crimes to which . . . multiple homicide ought to be compared"). However, I view this "limitation" as a useful feature. The fact that there are no "more serious" crimes against which to compare homicide reminds us that homicide uniquely is devastating among the offenses one member of our society can inflict on another. See Perez, 477 Mass. at 687, quoting Graham v. Florida, 560 U.S. 48, 69 (2010)

I write separately, however, for four reasons: first, to note that the parties, in urging us to extend juvenile sentencing protections to a novel subset of adults, ask us to commandeer the job of the Legislature to fashion criminal punishment. Accepting such an invitation runs afoul of bedrock principles of the separation of powers as articulated in art.

30. See Opinions of the Justices, 378 Mass. at 830 & n.7. See also United States v. Davis, 139 S. Ct. 2319, 2337 (2019) (Kavanaugh, J., dissenting) ("when we overstep our role in the name of enforcing limits on [the Legislature], we do not uphold the separation of powers, we transgress the separation of powers").

Second, it is a mistaken notion that our prior decisions in Diatchenko I and Perez are controlling on the question of constitutionality because those cases involved a group of offenders already recognized by the Legislature and the United

("[t]here is a line 'between homicide and other serious violent offenses against the individual'"). For the victims of homicide, "[l]ife is over" and nothing left remains, Coker v. Georgia, 433 U.S. 584, 598 (1977); for survivors, they are left with lifelong grief and psychological damage. See Armour & Umbreit, *The Ultimate Penal Sanction and "Closure" for Survivors of Homicide Victims*, 91 Marq. L. Rev. 381, 381 (2007) ("Studies of family members of homicide victims found that sixty-six percent could not find meaning after five years"). This limitation of the second prong relative to homicide should be viewed as prophylactic, in the sense that it cautions judges against the contemporary impulse to lessen the consequences for violators of society's greatest crime.

States Supreme Court, Miller v. Alabama, 567 U.S. 440 (2012), as constitutionally set apart from other offenders. See Diatchenko I, 466 Mass. at 670-671 (all sentences of life without possibility of parole for juvenile offenders violate art. 26). See also Perez, 477 Mass. at 686 (juvenile's aggregate sentence for nonmurder offenses prior to parole eligibility is "presumptively disproportionate" if it "exceed[s] that applicable to a juvenile . . . convicted of murder").

Third, I write to call attention to the inherent capriciousness of judicial line drawing; particularly where, as here, the court follows the neuroscience only as far as to extend juvenile sentencing privileges to one class of adult offenders, i.e., those from age eighteen to twenty at the time of the offense, while omitting another tranche of adults that the developmental science says also is deserving of protection. See E.S. Scott & L. Steinberg, *Rethinking Juvenile Justice* 208, 238 (2008) ("studies of brain development indicate that continued maturation takes place until at least age twenty-five or so" [emphasis added]).

Fourth and last, I write to illustrate that arbitrary reliance on developmental neuroscience, as proposed infra, raises troubling, if unintended, implications for other groups

exposed to our criminal laws.² By depicting the effect that such application of the science might have on these groups, I hope to highlight the perils that can come from judges believing that they are following "the science," wherever it may lead.

1. Separation of powers. Article 30 is unique in that it is more explicit than the Federal Constitution in calling for the separation of the powers of the three branches of government. Edwards v. Commonwealth, 488 Mass. 555, 567 (2021). Article 30 provides:

"In the government of this [C]ommonwealth, the legislative department shall never excise the executive and judicial powers, or either of them: the executive shall never exercise the legislative and judicial powers, or either of them; the judicial shall never exercise the legislative and

² Specifically, the court's application of the science, as advanced by the parties, (1) reinforces unfair (and oftentimes unnecessary) distinctions between older and younger offenders; (2) raises serious questions about the rights of mature juveniles, in addition to adults from age eighteen to twenty, to make decisions about their health care and reproduction, see Maroney, *The False Promise of Adolescent Brain Science in Juvenile Justice*, 85 *Notre Dame L. Rev.* 89, 103-107, 118 (2009) (describing well-intentioned use of brain imaging studies by advocates to argue for reduced culpability and sanctions for juvenile offenders while expressing concern that this reliance could translate to arguments against granting autonomy to adolescents in other areas); and (3) dispenses with any expectation that our legal norms can influence the development of juveniles, rather than the other way around. See Buss, *What the Law Should (And Should Not) Learn from Child Development Research*, 38 *Hofstra L. Rev.* 13, 52 (2009) (Buss, *Child Development*) (reasoning that ways in which juveniles and young adults "perceive their relationship with their society and their government . . . may matter more, for the successful functioning of our legal regime and the effective exercise of individual rights, than their acquisition of certain higher level capacities").

executive powers, or either of them; to the end it may be a government of laws and not of men."³

In recognition of art. 30, we often have insisted on the "scrupulous observance" of the limitations of each branch of government. Edwards, 488 Mass. at 567, quoting New Bedford Standard-Times Publ. Co. v. Clerk of the Third Dist. Court of Bristol, 377 Mass. 404, 410 (1979). The principle of judicial restraint that embodies art. 30 "recognizes 'the inability and undesirability of the judiciary substituting its notions of correct policy for that of a popularly elected Legislature.'" Joslyn v. Chang, 445 Mass. 344, 351-352 (2005), quoting Zayre Corp. v. Attorney Gen., 372 Mass. 423, 433 (1977).

Here, through the use of labels, the court shapes the issue merely as invalidating an unconstitutional statute. Ante at . In substance, however, the court circumvents the Legislature's power and substitutes its own notions of correct

³ In contrast, the Federal Constitution states: "All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives." Art. I, § 1, of the United States Constitution. It also vests the judicial power of the United States "in one [S]upreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish." Art. III, § 1, of the United States Constitution. The doctrine of the separation of powers long has been recognized by Federal law. See K.J. v. Superintendent of Bridgewater State Hosp., 488 Mass. 362, 367 (2021). However, unlike art. 30 of the Massachusetts Declaration of Rights, the Federal Constitution does not call explicitly for the separation of powers among the three branches of government. See Gray v. Commissioner of Revenue, 422 Mass. 666, 671 n.5 (1996).

policy based on the parties' submission of ever-changing neuroscience. See Joslyn, 445 Mass. at 351-352.

In drawing hard lines between juveniles and "emerging adults,"⁴ and older adult offenders, the court points to instances in which the Legislature has opted not to treat individuals from ages eighteen through twenty-one in the same manner that it does adults. Ante at . For example, those who are age eighteen may serve on a jury and vote. See G. L. c. 234A, § 4 (right to serve on jury); G. L. c. 51, § 1 (right to vote). But they may not gamble or purchase alcohol or tobacco. See G. L. c. 23K, §§ 25 (h), 43 (right to gamble); G. L. c. 138, § 34 (right to purchase alcohol); G. L. c. 270, § 6 (right to purchase tobacco).

While there are instances in which individuals from age eighteen to twenty-one are treated differently under the law from individuals over age twenty-one, where such a distinction has been made, it has been made through legislative action, i.e., the enactment of a statute. See, e.g., G. L. c. 23K, § 43 (must be age twenty-one to gamble in Commonwealth gaming establishment); G. L. c. 138, § 34 (must be age twenty-one to purchase, deliver, or sell alcohol); G. L. c. 270, § 6 (must be

⁴ As styled by the court and the parties, "emerging adults" is defined as someone aged eighteen or older, but under age twenty-one.

age twenty-one to purchase tobacco).⁵ Neither the parties, nor the court, have pointed to a single instance in which the judiciary has taken it on itself to make such a distinction between individuals in the newly minted "emerging adult" category and adults, as it seeks to do here.⁶ That the court and

⁵ In his concurrence, Justice Kafker invokes these "21+" statutes to suggest that the Legislature has, effectively, set aside "emerging adults" as a distinct legal subclass deserving of protection. See ante at note 9 (Kafker, J., concurring) ("I consider the Legislature's recognition of the need for differential treatment of those eighteen to twenty in a variety of other contexts when the legal rights in question implicate the same distinctive characteristic at issue in this case to be an important component of the analysis"). I reject that inference, at least as it relates to sentencing for violent crime. If the Legislature wishes to refine the age of majority for sentencing young adults who have committed murder, as it has done for entitlement to common vices, professional licensure, etc., then it certainly knows how to do so.

⁶ Justice Kafker points to the Supreme Court's decision in Thompson v. Oklahoma, 487 U.S. 815, 838 (1988) (Eighth and Fourteenth Amendments to United States Constitution prohibit death penalty for defendants convicted of murder in first degree committed while under age sixteen), as precedent for the use of judicial fiat to extend protections to a novel subset of individuals, based solely on age, sans any existing basis in statute or code to do so. See ante at note 7 (Kafker, J., concurring) (starting with Thompson, supra, evolution of Federal juvenile death penalty jurisprudence "involved judicial line drawing based on age without reliance on a clearly legislatively defined age group"). This reliance ignores, I think, two facts: first, that the Supreme Court in Thompson, like the court today, expressly drew its "line" to match the age of the appellant at the time he committed the crime. See Thompson, supra ("Petitioner's counsel . . . have asked us to 'draw a line' that would prohibit the execution of any person who was under the age of [eighteen] at the time of the offense. Our task today, however, is to decide the case before us . . ."). Second, it ignores those Federal statutes and codes in place at the time of the Thompson decision that placed fifteen year olds firmly

the parties can point only to legislative action to support their creation of this "emerging adult" category⁷ furthers the position that the drawing of this line is best left to the popularly elected Legislature. See Zayre Corp., 372 Mass. at 443-444 (while statute may contain faults, those statutory

within the category of "juvenile," as defined by Congress. See, e.g., id. at 851-852 (O'Connor, J., concurring in judgment) (noting that bill recently passed by United States Senate authorizing capital punishment for certain drug offenses, 134 Cong. Rec. 14117, 14118 [1988], "prohibit[ed] application of [death] penalty to persons below the age of [eighteen] at the time of the crime"); Juvenile Justice and Delinquency Prevention Act of 1974, Pub. L. No. 93-415, 88 Stat. 1109, 1133 (1974) (operative Federal statute concerning juvenile justice at time of Thompson decision defined "juvenile" as "a person who has not attained his eighteenth birthday").

⁷ Such "action" extends to the Legislature's creation of the Legislative Task Force on Emerging Adults in the Criminal Justice System (task force) in 2018. See ante at note 22; St. 2018, c. 69, § 221. In its report, the task force concluded that "[e]merging adults . . . in the criminal justice system are a unique population that requires developmentally-tailored programming and services." Emerging Adults in the Massachusetts Criminal Justice System: Report of the Task Force on Emerging Adults in the Criminal Justice System (Feb. 26, 2020), 2020 Senate Doc. No. 2840, at 6 (Report of the Task Force). However, as noted by Justice Lowy, ante, any attempt to derive contemporary standards of decency concerning mandatory life sentences for young adults from the proposals authored by the task force is misplaced, because the task force (i) defined "emerging adults" as individuals from age eighteen to twenty-four, and (ii) excluded the crime of murder from its proposed carceral reforms. See ante at ; Report of the Task Force, supra at 10. Further, if the conclusion of the task force is that the young adult prison population requires developmentally tailored programming and services, this court is powerless to implement such reforms, along with its reformulation of parole eligibility for adults from age eighteen to twenty convicted of murder.

faults that fail to rise to equivalent of constitutional infirmity are better left for Legislature to resolve).

The proper exercise of judicial restraint and acknowledgment of the bedrock principle of separation of powers found in art. 30 may lead, at times, to results that feel difficult. See Commonwealth v. Baez, 480 Mass. 328, 332 (2018) (no violation of art. 26 where Legislature's statutory scheme allowed even predicate offenses that were committed when defendant was under age eighteen to count toward enhanced mandatory minimum sentences under Armed Career Criminal Act). See also Commonwealth v. Guzman, 469 Mass. 492, 498 n.9 (2014) (Legislature's decisions to limit discretion of sentencing judges by imposition of mandatory minimum sentences does not derogate separation of powers); Commonwealth v. Smith, 431 Mass. 417, 417-420 (2000) (art. 30 compelled dismissal of indictment for two counts of incest, pursuant to G. L. c. 272, § 17, based on defendant's molestation of his daughter and forcing her to perform oral sex on him, because such conduct did not constitute "sexual intercourse" as defined by Legislature's specific choice of words in statute).

Here, although much is made of neuroscience, and the fact that this group of "emerging adults" lacks maturity and responsibility, such that they are prone to risk taking and negative influence from their peers, the science alone,

accompanied with the Justices' personal and moral beliefs, is not enough to take this decision away from the Legislature. Novel discoveries about how certain areas of the brain may function does not explain "why" and "how" we make the decisions we make. The human exercise of free will is the foundation of our criminal law; it is not reducible to magnetic resonance imaging (MRI) scans. But, if it is so reducible, then that is something over which the citizens and their representatives should engage in vigorous debate. The capacity for change and reform for the individuals that fit in this "emerging adult" category also does not tip the scale, as it is difficult to conclude that any human being is incapable of change and reform, regardless of his or her age. See Commonwealth v. O'Neal, 369 Mass. 242, 273 (1975) (Tauro, C.J., concurring) ("The great responsibility of a judge is to exercise his [or her] best judgment in applying his [or her] interpretation of the law to the facts. No judge should ever be concerned with whether his [or her] decision will be popular or unpopular. . . . [P]olitical considerations of the day, contemporary public emotions [no matter what their motivation], and personal philosophies are completely foreign and irrelevant to the exercise of [a judge's] judicial power. This is the very essence of judicial duty -- no less should be given and no more should be required").

Therefore, where contemporary personal and moral beliefs may lend themselves toward the opposite result, the express limitations placed on the judiciary under art. 30 constrain us from making the determination that abolition of sentences of life without the possibility of parole for individuals from age eighteen to twenty-one in this "emerging adult" category is appropriate. See Baez, 480 Mass. at 332-333 (Gants, C.J., concurring) (acknowledging Legislature's power to impose mandatory minimum sentences, while also encouraging Legislature to reconsider wisdom and fairness of statutory scheme that allows predicate offenses, committed when defendant was juvenile, to count toward enhanced mandatory minimum sentences under Armed Career Criminal Act). While scrupulous observation of these limitations sometimes may be difficult, the constitutional principle of the separation of powers among the branches is too fundamental to our form of government to be disregarded on a case-by-case basis. See Opinion of the Justices, 365 Mass. 639, 640-641 (1974).

2. Diatchenko I and Perez do not control the issue presented. In addition to our long-standing jurisprudence under art. 30, which mandates the separation of powers in instances such as this, it is necessary to write separately to emphasize that neither Diatchenko I nor Perez binds us in any manner on the constitutionality of the punishment in question.

As already outlined extensively and carefully in Justice Lowy's dissenting opinion, ante, our holding in Diatchenko I, 466 Mass. at 658, was limited expressly to "individuals who were under the age of eighteen when they committed the crime of murder in the first degree." The Legislature already had determined which individuals were juveniles. In Diatchenko I, we concluded that mandatory sentences of life without parole for juvenile offenders were disproportionate under art. 26. Id. at 658-659. Importantly, we limited our proportionality analysis only to juvenile offenders, i.e., those "defendants who were under the age of eighteen at the time they committed murder in the first degree," because juvenile offenders constituted a group of individuals already extensively recognized by the Legislature as a group in need of protections different from those afforded to the average offender. See id. at 658 n.8, citing G. L. c. 119, § 72B. See also G. L. c. 119, §§ 52-74 (delinquency determination and procedures set forth by Legislature). In Diatchenko I, we used neuroscience, social science, and contemporary standards of social norms, as did the Supreme Court in Miller, 567 U.S. 440, to operate within those already-defined age parameters created by the Legislature and held that the continued practice of sentencing juvenile offenders to life without the possibility of parole for murder

in the first degree violated the protections of art. 26.

Diatchenko I, supra at 660, citing Miller, supra at 471.

The same is true for our decision in Perez. In Perez, 477 Mass. at 679, we held "that where a juvenile is sentenced for a nonmurder offense or offenses, and the aggregate time to be served prior to parole eligibility exceeds that applicable to a juvenile convicted of murder, the sentence cannot be reconciled with art. 26 unless, after a hearing on the factors articulated in Miller[, 567 U.S. at 477-478], the judge makes a finding that the circumstances warrant treating the juvenile more harshly for parole purposes than a juvenile convicted of murder" (emphasis added).

The decision in Perez came on the heels of our decision in Diatchenko I, 466 Mass. 655, and involved juvenile offenders convicted of crimes not punishable by life without the possibility of parole who were faced with sentences that provided for time to be served prior to parole eligibility that exceeded the time applicable to juveniles convicted of murder in the first degree. Perez, 477 Mass. at 677-679. In conducting a proportionality analysis under art. 26, we acknowledged what we already previously had accepted in Diatchenko I, and what the Supreme Court already had accepted in Miller, i.e., that "children are constitutionally different from adults for [the]

purposes of sentencing." See Perez, supra at 683, quoting Miller, 567 U.S. at 471.

We reiterated that "the 'unique characteristics of juvenile offenders' should weigh more heavily in the [art. 26] proportionality calculus" (emphasis added). Perez, 477 Mass. at 683, quoting Diatchenko I, 466 Mass. at 671. Such characteristics included diminished culpability and greater prospects for reform. See Perez, supra at 684. Despite our recognition in Perez of the neuroscience that we previously acknowledged in Diatchenko I, our holding in Perez operated entirely within an already-defined binary set by the Legislature, i.e., juvenile offenders and nonjuvenile offenders. Thus, as with Diatchenko I, it is necessary to emphasize that Perez also does not control the issue presented because it, too, involved the category of juvenile offenders, for whom the Legislature had provided extensive procedures and protections, see G. L. c. 119, §§ 52-74, as opposed to the "emerging adult" category of individuals about whom the Legislature has spoken very little.

3. Arbitrary line drawing. The court uproots the legislatively drawn age at which an offender may be sentenced to life without the possibility of parole for murder in the first degree. See G. L. c. 127, § 133A. Perhaps nothing speaks louder to the flaws in the court's reasoning, however, than

having crafted a line that ends at age twenty-one, thereby engaging in legislative line drawing inconsistent with the science on which it relies. See Icenogle et al., Adolescents' Cognitive Capacity Reaches Adult Levels Prior to Their Psychosocial Maturity: Evidence for a "Maturity Gap" in a Multinational, Cross-Sectional Sample, 43 Law & Hum. Behav. 69, 70 (2019) (neuroscientific evidence indicating that brain development, and concomitant ability to self-regulate, continues to develop during early twenties); Steinberg, A Social Neuroscience Perspective on Adolescent Risk-Taking, 28 Developmental Rev. 78, 83 (2008) (self-regulatory competence for young adults "occurs gradually and is not complete until the mid-[twenties]"); Steinberg, The Influence of Neuroscience on U.S. Supreme Court Decisions about Adolescents' Criminal Culpability, 14 Nature Revs. Neurosci. 513, 515-516 (2013) (individuals "in their early [twenties]" more likely than older adults to engage in "risky behaviour;" seek "novel" and

rewarding "sensation[s];" and possess "low" "impulse control").^{8,9}

By not holding to the line drawn by the Legislature, i.e., eighteen, or the line drawn roughly by contemporary neuroscience, i.e., twenty-five, the "[court]'s holding simply replaces [one] unfairness with another." People v. Parks, 510 Mich. 225, 287 (2022) (Clement, J., dissenting). Defendants who are age twenty years and 364 days at the time of their crime would be afforded the possibility of parole; defendants who are

⁸ See also United States v. Gall, 374 F. Supp. 2d 758, 762 n.2 (S.D. Iowa 2005), rev'd, 446 F.3d 884 (8th Cir. 2006), rev'd, 552 U.S. 38 (2007) ("Recent studies on the development of the human brain conclude that human brain development may not become complete until the age of twenty-five"); Brain Immaturity Could Explain Teen Crash Rate, Wash. Post, Feb. 1, 2005 (recent National Institutes of Health study suggested "that the region of the brain that inhibits risky behavior is not fully formed until age [twenty-five]").

⁹ Or, put differently, the court is unwilling to follow the scientific consensus as to the age at which impulsivity, self-regulation in an emotionally aroused state, sensation seeking, and brain plasticity all calcify for the purposes of criminal culpability. But see Buss, Child Development, 38 Hofstra L. Rev. at 46 ("in the end, culpability is necessarily a legal judgment, not a psychological one, so the suggestion that developmental findings determine culpability is just misleading"); Fuchs & Flügge, Adult Neuroplasticity: More Than 40 Years of Research, Neural Plasticity, May 4, 2014, at 1-2 (factors such as stress, adrenal and gonadal hormones, neurotransmitters, growth factors, certain drugs, environmental stimulation, learning, and aging change neuronal structures and functions of adult brains and may induce generation of new neurons, i.e., neurogenesis). This fails to reckon with the naked fact that our most sacred and profane choices often emerge from the depths of the psyche, something neuroscience has not yet been able to map.

one day older would have no such opportunity. The court "readily admits that the science does not support that dividing line either."¹⁰ Id. See ante at , .

Imposed by judicial fiat, twenty-one minus a day is not tethered to hard science, nor is it joined to "contemporary standards of decency" as reflected in our criminal statutes. Good v. Commissioner of Correction, 417 Mass. 329, 335 (1994). There appears to be no clear limiting principle,¹¹ and as a result, we soon would see claims arguing that we should extend Diatchenko I protections to those aged twenty-one years (or older) at the time of their crime. After all, if the science

¹⁰ The science also does not conclude that female offenders suffer the same alleged inability to control themselves. Following the court's reasoning, girls and women should be treated more harshly. For a full discussion of this point, see note 24, infra.

¹¹ The court offers no material justification for limiting the category of "emerging adults" to those from age eighteen to twenty other than that that is the range requested by the defendant when his case was paired with Commonwealth v. Robinson, 493 Mass. (2023). Tellingly, prior to the two cases being joined, the defendant urged twenty-two as the appropriate age cap. While the judge's factual findings were limited to individuals aged eighteen through twenty at the time of commission, much of the scientific expert testimony and studies supporting those findings included individuals twenty-one years of age (and in some instances older) as it relates to salient categories of neurocognitive development, e.g., "Many of Dr. Galvan's studies included [twenty-one year olds] in the group of 'late adolescents' who were studied"; "for purposes of assessing the constitutionality of mandatory life-without-parole sentences, the brain science relied upon by the Court lends some support for treating [eighteen] through [twenty-one year olds] differently than older persons."

says that individuals at age twenty-one have all the same psychosocial limitations as those age seventeen, then, according to the court's reasoning, the mandatory imposition of life without the possibility of parole also must be unconstitutional as applied to a twenty-one year old. Such are the consequences when an appellate court invokes science selectively to achieve a policy outcome while "ignor[ing] the possibility that the age of majority is based less on scientific exactitude, and more on 'society's judgments about maturity and responsibility.'" Matter of the Personal Restraint of Monschke, 197 Wash. 2d 305, 332 (2021) (Owens, J., dissenting), quoting Davis v. Department of Licensing, 137 Wash. 2d 957, 974 (1999).

Cognizant that any line drawn by the court in this matter would be, by definition, "both overinclusive and underinclusive," the remedy proposed by the parties simply is overbroad. Parks, 510 Mich. at 275 (Bernstein, J., concurring), citing Roper v. Simmons, 543 U.S. 551 (2005). Until today, no court in the country has imposed a blanket prohibition on nondiscretionary sentences of life without parole for adults over age eighteen but under age twenty-one who have been convicted of murder. See Parks, supra at 244-245 (requiring trial judge to conduct individualized sentencing hearing for convicted murderers who killed while they were eighteen years of age prior to imposing life sentence); Matter of the Personal

Restraint of Monschke, 197 Wash. 2d at 324-325 (same, but includes those from ages nineteen to twenty). When we are called on to remedy "constitutional infirmity,"¹² be it in a statute, procedural practice, or rule, the principles of judicial restraint mandate that we dispassionately remove the offending part while leaving the nonoffending whole as intact as possible, as a surgeon would. Zayre Corp., 372 Mass. at 444. See Ramirez v. Commonwealth, 479 Mass. 331, 338 (2018), quoting Ayotte v. Planned Parenthood of N. New England, 546 U.S. 320, 329 (2006) (in "confronting a constitutional flaw in a statute, . . . a court 'should try not to nullify more of a legislature's work than is necessary'"). See, e.g., Herrmann v. Attorney Gen., 492 Mass. 51, 59 (2023); Planned Parenthood League of Mass., Inc. v. Attorney Gen., 424 Mass. 586, 603 (1997) (Lynch, J., dissenting) ("striking down a statute as unconstitutional is a dramatic exercise of judicial power to be used sparingly"). That the defendant barely entertains individualized sentencing hearings as a less drastic remedy demonstrates that he is in

¹² In this case, the alleged infirmity is that portion of G. L. c. 265, § 2, as amended through St. 1982, c. 554, § 3, that sets forth the penalty for murder in the first degree and distinguishes between the penalties for adults and juveniles. See Commonwealth v. Watt, 484 Mass. 742, 754-756 (2020). Also affected is that portion of the parole statute, G. L. c. 127, § 133A, that denies parole to those from age eighteen to twenty.

search of a movement court.^{13,14} We would be wise to reject his invitation.

¹³ I am not suggesting that this court should, in lieu of a blanket ban on the sentence, require that judges conduct an individualized hearing before imposing life without the possibility of parole for adults from ages eighteen through twenty convicted of murder in the first degree. Both outcomes, as discussed supra, wrest power impermissibly from the Legislature. I do, however, respect that other appellate courts, contemplating the same alleged violation of their respective constitutions, trust their trial judges to weigh the developmental neuroscience and make the correct call. See Parks, 510 Mich. at 244 ("Michigan Constitution requires that [young adults] convicted of first-degree murder receive the same individualized sentencing procedure . . . as juveniles who have committed first-degree murder"); Matter of the Personal Restraint of Monschke, 197 Wash. 2d at 311 (State constitutional bar against "cruel punishment" requires "courts to exercise complete discretion to consider mitigating circumstances associated with the youth of any juvenile defendant, even when faced with mandatory statutory language" [citation and quotation omitted]). See, e.g., United States v. Gonzalez, 981 F.3d 11, 22 (1st Cir. 2020), cert. denied, 141 S. Ct. 1710 (2021) (Miller, 567 U.S. at 480, stands for proposition that "so long as the defendant's youth is taken account in the sentencing process, a sentencer's ability to impose a life-without-parole sentence is not foreclosed" [citation, quotations, and alterations omitted]).

¹⁴ Subject to the rules of evidence, there is nothing that prevents the defense from offering the above research on neurodevelopmental science to the jury at trial. Indeed, in a murder trial, it is the job of the "jurors [to] find the facts, including those facts or issues on which they hear psychiatric testimony," such as the defendant's mental capacity at the time of the killing or whether he lacked the criminal responsibility for murder. Commonwealth v. Gould, 380 Mass. 672, 679 (1980). See Commonwealth v. Muller, 477 Mass. 415, 431 (2017) (Commonwealth must prove criminal responsibility beyond reasonable doubt); Commonwealth v. Oliveira, 445 Mass. 837, 848-849 (2006) ("reduced mental capacity is relevant to the jury's exercise of their broad discretion as a reflection of the community's conscience"). Given that the research relied on by the court raises concomitant issues of control, agency, and

One additional point -- the age-crime curve is one of the most well-known graphs in criminology. It shows, in relevant part, that the male "rate of offending by age rises in midadolescence, peaks in the later teen years,"¹⁵ and begins dropping precipitously "around age twenty," and "[b]y the midtwenties, the rate of offending for most crimes is much lower" (footnotes omitted). Buss, Kids Are Not So Different: The Path from Juvenile Exceptionalism to Prison Abolition, 89 U. Chi. L. Rev. 843, 879-880 (2022) (Buss, Juvenile Exceptionalism). Put another way, the age-crime curve demonstrates that most offenders stop offending somewhere from

culpability, it is perfectly reasonable to put such research before the collective wisdom of the jury to consider in determining whether to render a verdict of murder in the first or second degree, manslaughter, or not guilty. See Commonwealth v. Philyaw, 55 Mass. App. Ct. 730, 737 (2002), quoting United States v. McKinney, 429 F.2d 1019, 1023 (5th Cir.), modified on rehearing, 434 F.2d 831 (1970), cert. denied, 401 U.S. 922 (1971) (jury may "leaven [their] deliberations with [their] wisdom and experience" so long as jury do not "bring extra facts into the jury room").

¹⁵ It is well known, and not controversial to state, that males commit much more crime than females. See Federal Bureau of Investigation, Criminal Justice Information Services Division, 2019 Crime in the United States, <https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/table-42/table-42.xls> [<https://perma.cc/HA49-KT7W>] (in 2019, men accounted for ninety-seven percent of persons arrested for murder, ninety-three percent of persons arrest for sex offenses, eighty-eight percent of persons arrested for murder and nonnegligent manslaughter, seventy-nine percent of persons arrested for other violent crimes, and sixty-two percent of persons arrested for property crimes).

age eighteen to twenty-five. See id. at 880; Farrington, Loeber, & Howell, Young Adult Offenders: The Need for More Effective Legislative Options and Justice Processing, 11 Criminology & Pub. Pol'y 729, 734-735 (2012) ("highest concentration of desistance takes place during early adulthood irrespective of age of [first crime]").

There are many theories regarding why criminal desistance occurs in early adulthood. Social scientists, however, generally accept that youthful offenders stop offending primarily because they have attained full psychosocial maturity and have begun to assume adult roles. Buss, Juvenile Exceptionalism, 89 U. Chi. L. Rev. at 880. If the court is to take the drastic step of departing from the statutory age of majority in favor of following the purported science, then it should at least be bold enough to follow the science whole cloth. In a typically developing individual in our culture, "[b]rain and behavioral maturation continues . . . until roughly [age] twenty-five"; therefore, extending the protections of Diatchenko I to this age at least would "be consistent with the [c]ourt's developmental logic." Id. at 881. That the court presses no further than age twenty reflects two things: justified unease with extending youthful offender protections to what will be, for most violent criminals, the lifespan of their

criminal careers;¹⁶ and more important, tacit recognition that it should be "up to the Legislature to balance the science with society's penological goals." Parks, 510 Mich. at 299 (Clement, J., dissenting). See Gregg v. Georgia, 428 U.S. 153, 174-175 (1976) ("while [appellate courts] have an obligation to insure that constitutional bounds are not overreached, we may not act as judges as we might as legislators"); Jackson, 369 Mass. at 909, quoting Weems v. United States, 217 U.S. 349, 379 (1910) (basic functions of Legislature, such as proscribing punishment, "not to be interfered with lightly, nor by any judicial conception of their wisdom or propriety").

4. Unintended consequences. In arguing that art. 26 forbids the imposition of a sentence of life without parole for adults from ages eighteen through twenty, the court and the defendant rely heavily on four core factual findings made by the judge, namely, that young adults, in relation to their older peers, (i) demonstrate less impulse control; (ii) are more prone to risk taking in pursuit of rewards; (iii) are more susceptible to peer influence; and (iv) have greater capacity for change

¹⁶ See Garrett, Seal-Carlisle, Modjadidi, & Renbeg, Life Without Parole Sentencing in North Carolina, 99 N.C. L. Rev. 279, 286 (2021) (data associated with commission of crime reveals high correlation between criminality and age, "with [twenty-five] years of age considered the peak of one's criminal career").

owing to the plasticity of their brains.¹⁷ See ante at . The fourth finding has immense import; it is young adults' neuroplasticity that warranted the extension of Diatchenko I and ruled out individualized sentencing hearings. See ante at (Kafker, J., concurring). See also Diatchenko I, 466 Mass. at 670, citing Graham v. Florida, 560 U.S. 48, 68 (2010) ("Simply put, because the brain of [an 'emerging adult'] is not fully developed, either structurally or functionally, by the age of [twenty-one], a judge cannot find with confidence that a particular offender, at that point in time, is irretrievably depraved").

¹⁷ The novel technology relied on by the court and the parties (e.g., structural MRIs [sMRIs] and functional MRIs [fMRIs]) may explain why young men possess a greater biological proclivity to commit violent crimes. I note, however, that scant research exists on the effect that committing violent crimes -- murder, in particular -- has on brain development in juveniles and young adults. Most of the research on murder and the young brain either (i) focuses causally on the decision to kill, see Cope et al., *Abnormal Brain Structure in Youth Who Commit Homicide*, *Neuroimage: Clinical*, vol. 4, 2014, at 800-801 (MRI data comparing adolescent homicide offenders to incarcerated adolescents who did not commit homicide showed reduced gray matter volumes in medial and lateral temporal lobes in adult offenders); or (ii) traces the parts of the brain most active during the act of killing, see Molenberghs et al., *The Neural Correlates of Justified and Unjustified Killing: An fMRI Study*, 10 *Soc. Cognitive & Affective Neurosci.* 1397, 1397 (2015) (activation found in lateral orbitofrontal cortex during simulation where participants were made to watch first-person perspective animated video recordings in which they imagined themselves to be shooting innocent civilians).

I accept, as I must unless they clearly are erroneous, the judge's factual findings relating to neurocognitive development in young adults. Moreover, while I disagree with the result reached by the court, I accept that it engaged in a good-faith proportionality analysis in relation to the science and social science credited at hearing. See, e.g., Diatchenko I, 466 Mass. at 660-661, 669 (art. 26 proportionality analysis requires court to consider science, social science, contemporary standards of decency, law of other States, and "common sense").¹⁸ Having said that, I believe the court's application of the neuroscience to eighteen through twenty year olds, particularly as it relates to brain plasticity, is short-sighted and has corresponding implications for populations that the court did not consider,

¹⁸ Arguably, Diatchenko I also violates art. 30. By removing the judge's ability to weigh particularly heinous factors in capital cases, the court went much further, unnecessarily so, than the Supreme Court required in Miller. See, e.g., Commonwealth v. O'Brien, 432 Mass. 578, 592 (2000) (juvenile tried as adult sentenced to life without parole in connection with murder of mother of close friend, who was stabbed ninety-eight times); Commonwealth v. Berry, 420 Mass. 95, 114 (1995) (life sentence affirmed for juvenile convicted of breaking into apartment and murdering eighty-seven year old widow with butcher knife in her sleep); Commonwealth v. LaPlante, 416 Mass. 433, 444 (1993), S.C., 482 Mass. 399 (2019) (life sentence affirmed for juvenile convicted of raping and killing pregnant mother and drowning her two children).

i.e., older adult offenders,¹⁹ mature minors,²⁰ and at-risk juveniles. I address each group in turn.

a. Older offenders. The goals of sentencing a convicted criminal to a term of confinement include "punishment, deterrence, incapacitation, and rehabilitation." Commonwealth v. McIntyre, 436 Mass. 829, 833 (2002), citing Commonwealth v. Power, 420 Mass. 410, 414 (1995), cert. denied, 516 U.S. 1042 (1996). When judges impose sentences, they strive "to penalize offenders in such a way that they understand the reasonableness of the punishment, 'free of any legitimate hatred for the system that punished [them], and without the unnecessary venom we generate by excessive [punishment].'" McIntyre, supra at 834, quoting Nygaard, On the Philosophy of Sentencing: Or, Why Punish?, 5 Widener J. Pub. L. 237, 266 (1996).

As noted supra, the court relies heavily on research on brain plasticity, and its persistence into an individual's twenties, to hold that a sentence of mandatory life without parole for adults from ages eighteen through twenty violates art. 26. See Diatchenko I, 466 Mass. at 669. Properly framed, however, their principal reason for concluding that eighteen through twenty year olds deserve better treatment at sentencing

¹⁹ I.e., those offenders ages twenty-five and older at the time of their crime (older offenders).

²⁰ Females, in particular.

"is also, by implication, an account of why [older] adults [do not]." Buss, *Juvenile Exceptionalism*, 89 U. Chi. L. Rev. at 882.

Invoking the science of neuroplasticity to extend Diatchenko I protections to "emerging adults" signals that older offenders, sapped of their neurological capacity for change, are incarcerated primarily for punishment and societal deterrence. By contrast, the jailing of offenders who are from ages eighteen to twenty or juveniles at the time of their crimes, whose brains have yet to calcify, sounds squarely in rehabilitation.²¹ See Buss, *Juvenile Exceptionalism*, 89 U. Chi. L. Rev. at 883 (concern that "[t]he more that special qualities and treatment are identified and justified for [an] exceptionalist group [i.e., "emerging adults" and juvenile offenders], the more the unexceptional group [i.e., older offenders] is defined by their lack of these qualities and their disqualification from special treatment"). This dichotomy entrenches needlessly the distinctions between older offenders, on one end, and juveniles and young adults, on the other. Worse still, it may be considered biological fatalism that is plainly at odds with the data on recidivism, which shows that juvenile prisoners, once

²¹ This necessarily raises ethical questions about whether society can claim rehabilitation as a justification for jailing any criminal beyond age twenty-five.

released, reoffend at a rate higher than their adult peers. See K. Wade et al., Wisconsin Legislative Audit Bureau, Report 08-3, A Review: 17-Year-Old Offenders in the Adult Criminal Justice System, Department of Correction, at 7 (Feb. 2008) (seventeen year old offenders subject to adult jurisdiction were reincarcerated more often than adult offenders); Woolard et al., Juveniles within Adult Correctional Settings: Legal Pathways and Developmental Considerations, Int'l J. Forensic Mental Health, vol. 4, 2005, at 7 (compilation of statistics from fifteen States indicate that juveniles released from State prisons are rearrested at rate sixteen percent higher than adult counterparts). Moreover, I conclude that such fatalism toward adult offenders contradicts a central precept of our criminal justice system: that we are not only our worst act and, consequently, every offender has the capacity to change regardless of the age at which he or she offended.²²

²² Arguably, deterrence and public protection are important sentencing considerations, as they are necessary for a stable, peaceful society. It may be impossible to know whether a person has changed; thus, I would not second-guess the Legislature's policy choices in this area. There may be a point, however, at which the Legislature determines that there is no need for deterrence or public protection at a certain age. This is not a determination for the court unless the Legislature amends the sentence for murder and provides judges with the mandate to craft the most appropriate term of years in the unique circumstances of the case. See, e.g., Conn. Gen. Stat. §§ 53a-35a, 53a-45 (class A felony of murder punishable by "a term not less than twenty-five years nor more than life"); D.C. Code § 22-2104 (sentence for "murder in the first degree shall be not

Finally, the court's unwieldy application of neurocognitive science threatens to exacerbate further differences in how we sentence juveniles and how we sentence older offenders. More specifically, the sentencing provisions governing juveniles are grounded on "increasingly sophisticated social-scientific understandings" of their capacity, whereas the sentencing provisions for older offenders take no account of those factors. Buss, *What the Law Should (And Should Not) Learn from Child Development Research*, 38 Hofstra L. Rev. 13, 42 (2009) (Buss, Child Development). Cf. Strough & Bruine de Bruin, *Decision Making Across Adulthood*, Annual Rev. of Developmental Psychol., vol. 2, 2020, at 357 ("Age-related declines in fluid reasoning ability and working memory can compromise the quality of older adults' decision making when decisions are complex").

b. Mature juveniles. Relative to other States, Massachusetts law affords minors some autonomy to consent to well-counseled treatment for their physical and mental health care. See Baird v. Attorney Gen., 371 Mass. 741, 754 (1977) (recognizing "mature minor" rule in Commonwealth for nonemergency medical treatment where [1] best interests of minor are served by not notifying parents of intended medical

less than [thirty] years nor more than life imprisonment without release"); 730 Ill. Comp. Stat. 5/5-4.5-20 (providing for sentence of "not less than [twenty] years and not more than [sixty] years" for murder in first degree).

treatment and [2] minor can give informed consent to that treatment); G. L. c. 123, § 10 (minors aged sixteen or seventeen may consent to admission at mental health treatment facility); 104 Code Mass. Regs. § 25.03 (2016) (clarifying that mental health providers may, pursuant to Massachusetts's "mature minor" rule, elect to provide mental health treatment without notifying minor's parents). This autonomy encompasses the ability of certain minors to control their sexual health and reproduction, see G. L. c. 111, § 24E (enabling sexually active minors of childbearing age access to family planning services offered through Department of Public Health); G. L. c. 112, § 12F (same, but for treatment of human immunodeficiency virus and enumerated sexually transmitted diseases), and, if desired, avail themselves of the protections provided by the so-called "ROE Act" to terminate a pregnancy, see G. L. c. 112, § 12R (permitting abortion procedure for patients sixteen and older on obtaining patient's written informed consent).

In short, it is Commonwealth policy to respect, through legislation, the capacity of late adolescents to make certain decisions regarding their physical and mental health as well as their bodily autonomy. In reaching its conclusion, however, the court applies neuroscience selectively to argue that our youngest adults, to say nothing of teenagers, are not fully

capable of discerning basic right from wrong.²³ I reject that inference.

The application of cognitive neuroscience to, in essence, infantilize young adults as a class undercuts the collective wisdom of the Commonwealth, which clearly favors trusting young people with decisions of (even) life-altering import. Of more concern, the court's paternalism "rais[es] troubling questions about" the rights of adolescents, girls in particular,²⁴ "to make

²³ See Wagland & Bussey, *Appreciating the Wrongfulness of Criminal Conduct: Implications for the Age of Criminal Responsibility*, 22 *Legal & Crim. Psychol.* 130, 130 (2017) (eight year olds demonstrated that they were just as likely as older children and adults to understand wrongfulness of criminal behavior and be able to distinguish criminal behavior from mischievous behavior).

²⁴ Indeed, the court's and the parties' yoking of neurodevelopmental science to abstract notions of culpability and redeemability, taken to its logical extent, would have disparate impact on the sentencing of girls, who mature faster than boys "in many respects relevant to [the] law." Buss, *Child Development*, 38 *Hofstra L. Rev.* at 40. See L. Brizendine, *The Female Brain* 44 (2006) (claiming that biological differences between males and females result in females maturing two or three years earlier); Cauffman & Steinberg, *(Im)maturity of Judgment in Adolescence: Why Adolescents May Be Less Culpable than Adults*, 18 *Behav. Sci. & L.* 741, 753, 758 (2000) (females exhibit greater psychosocial maturity than males). My colleagues in the majority likely would bristle at the suggestion that girls, owing to their psychosocial "head start," warrant a harsher punishment than boys of the same age who commit the same crime. See, e.g., Dahl, *Adolescent Brain Development: A Period of Vulnerabilities and Opportunities*, 1021 *Annals N.Y. Acad. Sci.* 1, 12-16 (2004) (studies show "significant positive correlation between pubertal maturation and sensation seeking" in both boys and girls, which is associated with greater risk-taking behaviors). Yet if age is the best proxy for determining whether someone has the

medical decisions or decisions about [their] sexual health." Berk, *Children, Development, and the Troubled Foundations of Miller v. Alabama*, 44 L. & Soc. Inquiry 752, 759 (Aug. 2019) (Berk, *Troubled Foundations*). By invoking neuroscience to treat young adults as a separate constitutional class, we invariably call into question "a variety of domains concerning the choices of young people." *Id.* at 760. See Maroney, *The False Promise of Adolescent Brain Science in Juvenile Justice*, 85 *Notre Dame L. Rev.* 89, 159 (2009) ("Undue emphasis on the immature brain also might alter our societal commitment to allow teens incrementally greater control over important aspects of their lives," such as whether to access reproductive and sexual health services unilaterally). The court may attempt to confine its analysis to the criminal sphere, but it is unclear why the application should remain so limited. Berk, *Troubled Foundations*, supra.

The public's trust in the capacity of our adolescents and young adults to make certain decisions regarding their health care has been codified into law by our representative Legislature. See, e.g., G. L. c. 112, § 12R; G. L. c. 123, § 10; G. L. c. 111, § 24E. I would not overrule that collective

neurological capacity for change, then surely any factor that is highly correlated with "brain age" and maturation, such as biological sex, also is relevant.

wisdom which holds "emerging adults" fully to account for their decision to commit murder. See G. L. c. 127, § 133A (excluding convicted murderers aged eighteen or older at time of crime from statutory right to parole). See, e.g., Opinions of the Justices, 378 Mass. at 830 (judgment of Legislature to prescribe appropriate penalties must be "accorded due respect" by this court).

c. At-risk juveniles. Connecting the line of cases from the Supreme Court's decision in Roper, 543 U.S. at 569-570, to the court's decision today is the question how, precisely, should the science of brain development affect the law. See id. at 569, quoting Johnson v. Texas, 509 U.S. 350, 367 (1993) ("as any parent knows and as the scientific and sociological studies . . . tend to confirm, '[a] lack of maturity and an underdeveloped sense of responsibility are found in youth more often than in adults'"). Modern neuroscience, weighed properly, is an important, albeit supplementary, factor in our art. 26 analysis for disproportionate punishment. See Perez, 477 Mass. at 686; Diatchenko I, 466 Mass. at 671. See also Miller, 567 U.S. at 471. I do, however, question whether our focus should be less on the extent to which our knowledge of brain development should influence the law, and more on how knowledge of the law ultimately may have an impact on development. See

Buss, *Child Development*, 38 Hofstra L. Rev. at 48 (reciprocal relationship exists between childhood development and law).²⁵

Children in Massachusetts know that their legal rights and responsibilities forever are altered on turning eighteen. Indeed, knowledge of this situation becomes largely unavoidable for adolescents in the years leading up to their eighteenth birthday. See G. L. c. 149, §§ 86, 89 (employers required to have youth employment permits on file for all workers fourteen to seventeen); G. L. c. 90, § 8B (must be sixteen years old to apply for learner's permit); G. L. c. 69, § 1D (requiring passing score on Massachusetts comprehensive assessment system, administered in tenth grade, as prerequisite for graduation). In short, they are on notice. On reaching our age of majority, adults in Massachusetts inherit the largest bundle of rights

²⁵ Courts have been led astray by the appeal of following what, at the time, appeared to be science. The examples are numerous, and we are familiar with some of the more egregious examples here in the Commonwealth. See Commonwealth v. Kater, 409 Mass. 433, 447-448 (1991), S.C., 412 Mass. 800 (1992) and 432 Mass. 404 (2000) (testimony aided in whole or in part by hypnosis no longer admissible "because it is unreliable"). See also Commonwealth v. Coutu, 88 Mass. App. Ct. 686, 694 n.4 (2015) (spectral evidence used to convict defendants at Salem witch trials). I am not equating modern neuroscience with hypnosis or spectral evidence. Rather, I note that our understanding of this area of science is far from complete, especially in that murky area where reflexive action ends and our (distinctly) human choice to act originates. Using neurodevelopmental science to assess culpability risks ignoring hundreds of years of philosophy as well as learning from other societal structures.

they ever will receive;²⁶ conversely, they know that they also are exposed to the full consequences of their criminal acts in adult courts.²⁷

As a court, we must be careful not to disregard the developmental impact that this knowledge has in "nudging" children in the direction of "that unrealized adult ideal." Buss, *Child Development*, 38 *Hofstra L. Rev.* at 15. See Berk, *Troubled Foundations*, 44 *L. & Soc. Inquiry* at 765-766 ("If age is understood not simply as a 'gross proxy,' . . . but as marking the boundary of a democratic pre-commitment to care for young people, it is easier . . . to justify drawing a firm line at eighteen or establish . . . consistency [with] the mature minor doctrine"). It is easy to shift the line in deference to what the latest science tells us; harder still is accepting that the present line, though imperfect, serves an aspirational function separate and apart from being simply "the point where

²⁶ See, e.g., G. L. c. 231, § 850 (must be age eighteen to be party to binding and enforceable contracts); G. L. c. 234A, § 4 (must be age eighteen to sit on jury); G. L. c. 10, § 29 (must be age eighteen to purchase lottery ticket); and G. L. c. 159A, § 9 (must be age eighteen to drive common carrier motor vehicle).

²⁷ I recognize, of course, that certain charges against juveniles are mandated by statute to be tried in the Superior Court rather than the Juvenile Court. See, e.g., G. L. c. 119, § 74, as amended through St. 2013, c. 84, §§ 25-26 (charges of murder in first or second degree against person from ages fourteen through seventeen must be brought in Superior Court).

society draws the line for many purposes between childhood and adulthood." Roper, 543 U.S. at 574. How we expose young people to our law matters; we inhibit their growth as citizens when we treat the law as an abstract, malevolent force from which they require protection, rather than as those wise restraints that make us all more free.

5. Conclusion. For all the reasons stated herein, and for all the reasons cited in Justice Lowy's dissent, ante, a sentence of life without the possibility of parole for adults aged eighteen to twenty does not constitute cruel or unusual punishment under art. 26 of our Declaration of Rights. I respectfully dissent.