**Roper v. Simmons: The Role of the Science Brief**

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This article is about an amicus brief written by a group of lawyers at a law firm in New York on behalf of the scientific community in Roper v. Simmons. On behalf of our clients, we argued that the death penalty’s goals of retribution and deterrence were not served by its application to juveniles. Because recent scientific advances in brain research indicate that the adolescent brain has not yet fully developed, the decision-making capacity and risk-taking behavior of adolescents are far different from those of adults; thus adolescent offenders are less culpable. These scientific findings were central to the oral argument. Moreover, this article notes that Justice Kennedy’s opinion overturning the juvenile death penalty relied on the amicus brief’s research and conclusions to support his rationale for deeming the juvenile death penalty cruel and unusual punishment in contravention of the Eighth Amendment.

I. INTRODUCTION

The Eighth Amendment of the United States Constitution provides that “[e]xcessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishment inflicted.”1 In determining just what is cruel and unusual, the Court has looked to evolving standards of decency.2 What those standards are—and who articulates them—has been a source of contention for the Court. Nevertheless, it is clear that state legislative enactments are critical to assessing whether a particular punishment is cruel and unusual. Thus, much of the debate has focused on whom the state chooses to execute rather than the method of execution itself.

The law makes clear that there are two bases on which to justify the imposition of the death penalty: retribution and deterrence.3 Retribution is usually discussed by the Court in arguments that emphasize fairness. The notion of culpability lies at the heart of the logic of retribution. Further, the punishment meted out should be proportional to the blameworthiness, or culpability of the offender. Deterrence is discussed in terms that emphasize the efficient administration of justice and ordering of society.

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1 U.S. CONST. amend. VIII.
This article discusses an amicus brief\(^4\) in *Roper v. Simmons*,\(^5\) written on behalf of the scientific community\(^6\) by a group of lawyers at a law firm in New York. To summarize, we relied on emerging scientific data for support to argue that the adolescent brain is not fully formed, and consequently, adolescent decision-making capacity and risk-taking behavior is far different than that of an adult. We did have a political position regarding the juvenile death penalty—we were against it. It would be disingenuous to disclaim our point of view, but then who is without one? We harnessed the available research to the existing law and argued that the death penalty’s goals of retribution and deterrence were not served by its application to juveniles. Thus, the science brief was born.

II. APPROACH: MAINTAINING THE INTEGRITY OF OUR SCIENTIFIC EVIDENCE

The legal team writing the brief was keenly aware that there is a balance between advocacy and neutrality. While we had a legal position to advocate, we represented scientific institutions, and it was of the utmost importance to honestly represent the conclusions the scientific evidence actually supported. In short, we did not push the science beyond its limits.

The process of assessing the scientific research and determining which studies were more respected than others was a thorough one. Primarily, we had an “advisory panel,” a group of four or five scientists at various research universities who were well-versed in the field of brain development research, including some who had a particular focus on adolescents. We asked this panel to direct us to the foundational and well-settled research in the field, as well as to emerging research.

The advisory panel was, in many ways, our compass. We interacted with each advisor independently—this allowed a vetting process for their respective comments and provided invaluable refinement of sources. Once we compiled the relevant research, each member of the group reviewed it, looking for omissions or misuses. This process took about four to six months and we continued to ensure our research was current right up until our filing date.\(^7\)

We had other sources of input as well. The assistance of scientists working at our client-institutions (the American Medical Association and the American Psychiatric Association among them) was helpful—especially given the stature of these organizations. Some of the attorneys working on the case had science


\(^6\) Our amici of record includes the American Medical Association, the American Psychiatric Association, the American Society for Adolescent Psychiatry, the American Academy of Child and Adolescent Psychiatry, the American Academy of Psychiatry and the Law, the National Association of Social Workers, and the National Mental Health Association.

\(^7\) July 16, 2004.
backgrounds, while other attorneys spent countless hours reading about neuroscience and learning about the fundamentals of the human brain. In these and other ways, we became facile with the scientific research so we could demonstrate how it impacted the law.

The legal team working on the science brief believed that the Court was receptive to abrogating the application of the death penalty, if it could be shown that executing a certain class of offenders would not serve the twin goals of retribution and deterrence. Before *Roper*, the Court had imposed some limits on the application of the death penalty. In 1988, a plurality of the Court in *Thompson v. Oklahoma* held that it was cruel and unusual to execute a person who was under sixteen at the time of his crime.\(^8\) In 1989, however, the Court rebuffed an attempt to extend *Thompson* to those who were sixteen and seventeen at the time they committed their offenses.\(^9\) In *Stanford v. Kentucky*, the Court thus upheld the constitutionality of state statutes authorizing the execution of sixteen- and seventeen-year-old offenders.\(^10\) In the same year the Court decided *Stanford*, the Court held in *Penry v. Lynaugh* that it was constitutional to execute the mentally retarded.\(^11\) But in 2002, the Court reversed *Penry*, and held in *Atkins v. Virginia* that it was cruel and unusual punishment to execute mentally retarded offenders.\(^12\) The Court noted that retribution and deterrence were not served by executing the mentally retarded.\(^13\)

### III. Retribution

The science brief argued that retribution would not be served by executing adolescents.\(^14\) In death penalty jurisprudence, culpability is the measure of retribution.\(^15\) The Court is committed to meting out punishments that are proportionate to the offender’s culpability. Thus, in our science brief, we argued that juveniles’ brains are anatomically different and deficient as compared to those of adults.

While moral culpability could not be measured, cognitive functioning could be. Adolescents’ brain development is immature because the frontal lobe, the part

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\(^8\) 487 U.S. 815, 838 (1988).
\(^10\) *Id.*
\(^12\) 536 U.S. 304, 318 (2002).
\(^13\) *Id.* at 318–19.
\(^14\) Brief of the American Medical Ass’n, *supra* note 4, at 21–23.
of the brain responsible for reasoning, impulse control, cost-benefit calculations, and good judgment, is not fully developed.\textsuperscript{16} This means that adolescents are inherently more prone to risk-taking behavior and less capable of governing impulses than adults. The ability of adolescents to make cost-benefit calculations, as compared to adults, is deficient.\textsuperscript{17} Additionally, their susceptibility to peer pressure is greater because of this impaired judgment.\textsuperscript{18} Moreover, adolescents are more volatile than adults, experiencing more extreme emotions that are not as regulated as they are in adults.\textsuperscript{19}

These studies were presented to the Court as evidence that adolescents are biologically different.\textsuperscript{20} The logical argument to the Court based on the biological difference evidence was as follows: If adolescents’ cognitive functioning is significantly less developed, then so is their level of understanding of their actions. In short, adolescents have a reduced capacity. In turn, as agents with a reduced capacity, adolescents are inherently less blameworthy than adults who commit the same crimes. If adolescents are less culpable, then the ultimate punishment—the death penalty—is disproportionate.

There were links in the jurisprudence about retribution we identified as malleable points of entry for the scientific evidence.\textsuperscript{21} In \textit{Atkins}, the Court identified factors which measure culpability. The Court stated:

\[\text{Clinical definitions of mental retardation require not only subaverage intellectual functioning, but also significant limitations in adaptive skills such as communication, self-care, and self-direction that became manifest before age 18. Mentally retarded persons frequently know the difference between right and wrong and are competent to stand trial. Because of their impairments, however, by definition they have diminished capacities to understand and process information, to communicate, to abstract from mistakes and learn from experience, to engage in logical reasoning, to control impulses, and to understand the reactions of others. There is no evidence that they are more likely to engage in criminal conduct than others, but there is abundant evidence that they often act on impulse rather than pursuant to a premeditated plan, and that in group settings they are followers rather than leaders. Their deficiencies do not warrant an exemption from criminal sanctions, but they do diminish their personal culpability.}\textsuperscript{22}

\textsuperscript{16} Brief of the American Medical Ass’n, \textit{supra} note 4, at 16.
\textsuperscript{17} \textit{Id.} at 5–6, 8.
\textsuperscript{18} \textit{Id.} at 8–9.
\textsuperscript{19} \textit{Id.} at 8.
\textsuperscript{20} \textit{Id.} at 21–22.
\textsuperscript{21} \textit{Id.} at 21–22.
\textsuperscript{22} \textit{Atkins}, 536 U.S. at 318 (internal citations omitted).
When researching scientific data, we looked for articles that addressed adolescents’ inability to engage in logical reasoning, the inability to control impulses, and to be followers rather than leaders. Critics of our approach might argue that we were likening adolescents to persons with mental retardation. Under this view, our arguments—that adolescents have reduced capacity—could be used to strip adolescents of their rights in other legal contexts, like abortion. There are two points to make in response to this critique. First, the constitutional rights involved in abortion and the death penalty are legally distinct. Abortion is protected by the 14th Amendment right to privacy, which places limits on the burdens a state may impose on that right. Conversely, the death penalty is constitutionally permissible provided its imposition is in keeping with the Eighth Amendment prohibition against cruel and unusual punishment. Competency, consent, and rights are the fibers of a rights-based Constitution. Our arguments about the development stages of the human brain leave these untouched. Culpability, retribution, and deterrence, meanwhile, are the fibers of the penal system, and in this context mens rea matters. The second point is that the Roper science brief’s arguments do not strip adolescents of their rights—legally speaking—nor do they aid anti-death penalty efforts in that—in a strictly legal sense—there certainly are faults with our approach. The main weakness of our approach to the science brief was that in asserting an exception, the approach may have reinforced the rule. To argue that retribution and deterrence are not served by executing a certain group of offenders (i.e., adolescent offenders) may reinforce the value and position that retribution and deterrence have in justifying the death penalty as applied to others not in the excluded subgroup.

In short, a subterranean idea in our brief is that the death penalty is a fair end and that retribution and deterrence are fair ways of getting there—just not when it comes to adolescents. But if one is opposed to the death penalty generally (as we are), such arguments may be counter-productive over time because the argument theoretically affirms the legitimacy of the death penalty applied to non-excluded groups. The flip side of this argument is that if there are enough groups exempt from the death penalty, then legislatures and the Court may come to see capital punishment itself as a violation of the Eighth Amendment’s prohibition on cruel and unusual punishment.

IV. DETERRENCE

Once science shows that the cognitive functioning of adolescents is deficient, it logically follows that the goals of deterrence will not be met by enforcing capital sentences against adolescent offenders. We were very careful to distinguish

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23 Brief of the American Medical Ass’n, supra note 4, at 8–9, 12–14.

24 Id. at 20–23.
adolescents, whose cognitive functioning is still maturing, from that of mentally retarded persons, whose mental age is more or less unchanging.\textsuperscript{25} We noted that adolescents exhibit the characteristics of persons with “disabilities in areas of reasoning, judgment, and control of their impulses.”\textsuperscript{26}

Our biggest challenge in the brief was determining how to successfully argue the Court could—and should—draw a line at the age of eighteen. The emerging research applied to adolescence and “late adolescence”—but none of the data held that at eighteen years of age, cognitive functioning had fully matured.\textsuperscript{27} Indeed, how could the science assert an exact moment in time when the frontal lobe shifts from being underdeveloped to being fully developed, as it is by definition a gradual, imprecise process? We did not, however, push the science to support a point it could not. Rather, we relied on the Court to conclude that eighteen was a reasonable line to draw between adolescence and adulthood. Indeed, at oral argument, Justice Ginsburg asked the Missouri State Solicitor, James Layton, “Why should it be that someone is death-eligible under the age of 18 but not eligible to be an adult member of the community?”\textsuperscript{28} She was likely referring to the way in which society treats those under eighteen as non-adults by denying them the right to vote, to serve on juries or in the military, or buy alcohol or tobacco. Ultimately, the Court took a practical, administrable approach to drawing a line. As Justice Kennedy noted, “[t]he age of 18 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.”\textsuperscript{29}

The science brief thus played an important role in the Court’s decision in \textit{Roper} because it did not quarrel with the accepted bases of the death penalty, namely retribution and deterrence, nor even with the death penalty itself. Rather the brief accepted those bases and instead argued that targeting sixteen- and seventeen-year-old offenders did not serve those goals. We used scientific research that did not exist at the time of \textit{Stanford}, and advocated that because retributory and deterrent goals were not served by applying the death penalty to juvenile offenders, such application would be unconstitutional. Though the brief made no robust argument regarding any national consensus, the fact that states were increasingly outlawing the execution of juveniles was a circumstance that worked in our favor.\textsuperscript{30}

\begin{footnotes}
\item[25] Brief of the American Medical Ass’n, \textit{supra} note 4, at 21–22.
\item[26] \textit{Atkins}, 536 U.S. at 306.
\item[27] Brief of the American Medical Ass’n, \textit{supra} note 4, at 7.
\item[29] \textit{Roper}, 543 U.S. at 574.
\item[30] \textit{Id.} at 564–68; see also \textit{Id.} at 568 (“A majority of States have rejected the imposition of the death penalty on juvenile offenders under 18, and we now hold this is required by the Eighth Amendment.”).
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V. THE ROLE OF THE SCIENCE BRIEF AT ORAL ARGUMENT

In Roper, oral argument focused on the role of the science brief. At least sixteen out of the twenty-odd questions asked of former Solicitor General Seth Waxman, who argued on behalf of the minor, Christopher Simmons, related to the scientific evidence documented in our brief. At argument, Waxman began by stating that it is well settled that the death penalty should not apply to a certain group of juvenile offenders, but that the question was “where our society’s evolving standards of decency now draw that line.”31 Waxman asserted that the scientific evidence suggesting that adolescent brains were undeveloped did not exist in 1989, when the court decided Stanford. Chief Justice Rehnquist questioned the degree to which the Court could consider the role of the scientific evidence, given that it was not introduced at trial. Rehnquist quipped, “I would think if you want to rely on evidence like that, it ought to be introduced at trial and subject to cross examination rather than just put in amicus briefs.”32 Waxman made two points to rebut this issue. First, he pointed out that the research findings were made after Simmons’ 1997 trial. Second, he noted that the question of whether executing juveniles is constitutional was not an issue in Simmons’ trial. Instead the issue at trial was a state law and what the jury was told was the law.

Justice Kennedy specifically asked Waxman to comment on the scientific evidence. Rather than becoming distracted by and mired in issues of competency, Waxman rightly focused on moral culpability as derived from the cognitive difference and deficiency of the adolescent mind. Thus, what the brief emphasized, and what Waxman reasserted, was the similarities in cognitive development between adolescents and mentally retarded offenders as related to moral culpability. This is legally—and factually—distinct from the notion of cognitive development as it relates to the ability to make a competent decision. Thus, Waxman argued that juvenile offenders were not deserving of the death penalty because they lacked the requisite level of culpability so as to justify retribution or deterrence.

VI. THE DECISION

Writing on behalf of the majority in Roper, Justice Kennedy stated that the execution of those offenders who were sixteen or seventeen at the time of their offense was unconstitutional and did not comport with our evolving standards of decency. Justice Kennedy was acutely aware that a growing number of states were outlawing such executions, a significant change in the law since the Court decided Stanford. But the Court’s understanding of adolescent brain development was

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31 Transcript of Oral Argument, supra note 28, at 18.
32 Id. at 25.
something that had not been considered fully in Stanford. Justice Kennedy heavily quoted the evidence presented in the science brief:

First, as any parent knows and as the scientific and sociological studies respondent and his *amici* cite tend to confirm, “[a] lack of maturity and an underdeveloped sense of responsibility are found in youth more often than in adults and are more understandable among the young. These qualities often result in impetuous and ill-considered actions and decisions.”

He then continued:

It has been noted that “adolescents are overrepresented statistically in virtually every category of reckless behavior.” Arnett, Reckless Behavior in Adolescence: A Developmental Perspective, 12 Developmental Review 339 (1992). In recognition of the comparative immaturity and irresponsibility of juveniles, almost every State prohibits those under 18 years of age from voting, serving on juries, or marrying without parental consent. (citation omitted).

The second area of difference is that juveniles are more vulnerable or susceptible to negative influences and outside pressures, including peer pressure . . . . This is explained in part by the prevailing circumstance that juveniles have less control, or less experience with control, over their own environment. See Steinberg & Scott, Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty, 58 Am. Psychologist 1009, 1014 (2003) (hereinafter Steinberg & Scott) (“[A]s legal minors, [juveniles] lack the freedom that adults have to extricate themselves from a criminogenic setting”).

The third broad difference is that the character of a juvenile is not as well formed as that of an adult. The personality traits of juveniles are more transitory, less fixed. See generally E. Erikson, Identity: Youth and Crisis (1968).

The science brief figured prominently in the panoply of arguments available to Justice Kennedy when writing the Court’s opinion. In his assessment of whether retribution was served by executing juvenile offenders, Justice Kennedy emphasized the importance of culpability and proportionality. Thus, *Roper* also reinforces the tendency in death penalty law to focus almost exclusively on assessing culpability as an initial matter, with deterrence as a secondary concern to make application of culpability administrable.

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34 *Id.* at 569–70.
VII. CONCLUSION

Since the mid-1970s, death penalty jurisprudence has largely focused on the meaning of cruel and unusual punishment rather than on the legitimacy of the death penalty itself. For better or worse, *Roper v. Simmons* and the science brief were embedded in, and contributed to, that legacy. In arguing for yet another exception, one could argue we merely reinforced the legitimacy of the death penalty itself. Given that exceptions tend to reinforce the rule from which they are exempt, our strategy raises the question of whether litigating exceptions is the best approach if eliminating the death penalty is the ultimate goal. Lawyers often straddle the line between a detached intellectualism and an engaged activism to change society for the better with law as our principal tool. Whether *Roper*—and the strategies employed therein—was for better or worse is something that only time—and future litigation efforts—will reveal.