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The Rebirth of Rehabilitation in Juvenile and Criminal Justice: New Wine in New Bottles

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I. INTRODUCTION

These are indeed exciting times for those of us interested in the reform of our juvenile and adult criminal justice systems. Innovation is in the air among legal scholars, behavioral scientists, and both legal and clinical practitioners. Not many in the legal and scientific communities seem satisfied with the status quo.¹ Fresh thinking and new evidence-based practices generated within each of these professional domains are beginning

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1. Christopher Slobogin, *How Changes in American Culture Triggered Hyper-Incarceration: Variations on the Tazian View*, HOW L.J. (forthcoming 2015); Christopher Slobogin & Mark R. Fondacaro, *Juvenile Justice: The Fourth Option*, 95 IOWA L. REV. 1, 61-62 (2009); Mark W. Lipsey et al., *Improving the Effectiveness of Juvenile Justice Programs: A New Perspective on Evidence-Based Practice*, 2010 CTR. FOR JUV. JUST. REFORM 1, 47-48; Editorial, *Justice Kennedy's Plea to Congress*, N.Y. TIMES (Apr. 4, 2015), http://www.nytimes.com/2015/04/05/opinion/sunday/justice-kennedys-plea-to-congress.html?_r=0.

to benefit from collaborative efforts at cross-fertilization and integration.² Increasingly, policymakers seem to be taking notice and are beginning to publicize their views on the need for reform.³ Topics such as mass incarceration, racial biases in our criminal justice system, and wrongful convictions, which were not too long ago highly controversial if not taboo, are being openly discussed in public by policymakers representing the entire political spectrum.⁴ A confluence of social, scientific, legal, and policy influences is beginning to pave the way for the rebirth of rehabilitation in our criminal justice system. However, to ensure a healthy delivery of rehabilitation in the 21st Century criminal justice system in America, we must rethink the substance and delivery of rehabilitation in a way that is best captured by David Wexler's metaphor of "Pouring New Wine into New Bottles."⁵ The new wine represents evidence-based intervention strategies that draw on social ecological theories of human behavior to not only understand the social, psychological, and biological drivers of crime, but to identify intervention strategies that are effective in preventing crime and reducing recidivism. The new bottles represent a shift away from a backward-looking moral judgment model of criminal responsibility toward a more forward-looking approach to legal accountability that aims

2. Mark W. Lipsey, *Interventions for Juvenile Offenders: A Serendipitous Journey*, 13 CRIMINOLOGY & PUB. POL'Y 1, 10-11 (2014); Brandon C. Welsh et al., *Translating Research into Evidence-Based Practice in Juvenile Justice: Brand-Name Programs, Meta-Analysis, and Key Issues*, 10 J. EXPERIMENTAL CRIMINOLOGY 207, 216, 220 (2014); James C. Howell, *Mark Lipsey's Contribution to Evidence-Based Services for Juvenile Offenders: What Works across Juvenile Justice Systems*, 13 CRIMINOLOGY & PUB. POL'Y 15, 16 (2014); Alex R. Piquero, *Moving from Description to Implementation of Evidence-Based Research Findings*, 13 CRIMINOLOGY & PUB. POL'Y 127, 130-31 (2014); See generally CHRISTOPHER SLOBOGIN & MARK R. FONDACARO, JUVENILES AT RISK: A PLEA FOR PREVENTIVE JUSTICE (2011).

3. Carl Hulse, *Unlikely Cause Unites the Left and the Right: Justice Reform*, N.Y. TIMES (Feb. 18, 2015), <http://www.nytimes.com/2015/02/19/us/politics/unlikely-cause-unites-the-left-and-the-right-justice-reform.html>; Lawrence Hurley, *U.S. justices voice support for criminal justice reform*, REUTERS (Mar. 23, 2015), <http://www.reuters.com/article/2015/03/23/us-usa-court-crime-idUSKBN0MJ2CJ20150323>; *Obama, Lawmakers Push for Criminal Justice Reform*, N.Y. TIMES (Feb. 24, 2015 8:02 P.M.), <http://www.nytimes.com/aponline/2015/02/24/us/politics/ap-us-obama-criminal-justice.html>; JEREMY M. CREELAN & SOFFIYAH ELIJAH, FINAL REPORT OF THE GOVERNOR'S COMMISSION ON YOUTH, PUBLIC SAFETY AND JUSTICE: RECOMMENDATIONS FOR JUVENILE JUSTICE REFORM IN NEW YORK STATE 79 (2014), available at https://www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/ReportofCommissiononYouthPublicSafetyandJustice_0.pdf; see generally STEVE AOS, MARNA MILLER & ELIZABETH DRAKE, WASH. STATE INST. FOR PUB. POLICY, EVIDENCE-BASED PUBLIC POLICY OPTIONS TO REDUCE FUTURE PRISON CONSTRUCTION, CRIMINAL JUSTICE COSTS, AND CRIME RATES (2006).

4. 6 *Cities Chosen for Project on Curbing Racial Bias*, N.Y. TIMES (Mar. 12, 2015 3:48 P.M.), <http://www.nytimes.com/aponline/2015/03/12/us/politics/ap-us-justice-racial-bias.html>; Brandt Grissom, *Inmate's Release Brings Call for New Evidence Law*, N.Y. TIMES (Oct. 8, 2011), <http://www.nytimes.com/2011/10/09/us/inmates-release-brings-call-for-new-evidence-law.html>; Hulse, *supra* note 3.

5. David B. Wexler, *New Wine in New Bottles: The Need to Sketch a Therapeutic Jurisprudence "Code" of Proposed Criminal Processes and Practices*, 7 ARIZ. L. REV. 463, 464-470 (2014); David Wexler, *Moving Forward on Mainstreaming Therapeutic Jurisprudence: An Ongoing Process to Facilitate the Therapeutic Design and Application of the Law*, THERAPEUTIC JURISPRUDENCE 3 (2014).

systematically at the individual prevention of criminal behavior and the promotion of public safety in the least restrictive and most cost-effective manner.⁶

This article will provide an overview of the historical background of rehabilitation and punishment in the American criminal justice systems and will discuss social, psychological, legal, scientific, and policy considerations that have kindled the rebirth of rehabilitation in juvenile and adult criminal justice. We will focus on the relationship between the juvenile and adult criminal justice systems, and how reforms of juvenile justice and advances in the social, behavioral, and neurosciences have and should pave the way for reforms in how we judge criminal responsibility and respond to criminal behavior in the 21st Century. Section II provides an overview of the rise and fall of rehabilitation in the 20th Century in both the juvenile and adult criminal justice systems. The ultimate limitations of both clinical models of intervention and legal conceptualizations of due process on which rehabilitation were based are emphasized. Section III focuses on the consequences of the “death” of rehabilitation in both the juvenile and adults systems for individual offenders and society at large, culminating in our present levels of mass incarceration and racial disparities. Section IV focuses on the ingredients necessary for the healthy rebirth of rehabilitation, including recent advances in behavioral, neuroscience, and intervention research that are informing evidence-based intervention strategies that work—for both juveniles and for adults. This “new wine” is being coupled with and poured into “new bottles” or legal procedures and policies aimed at promoting accuracy, fairness, and effectiveness in legal decision making and sentencing. Finally, section V concludes with an integrative framework for ensuring that forward-looking, rehabilitative, consequentialist responses to crime supplant scientifically, socially, economically, and morally deficient retributive justifications for punishment in the American criminal justice systems.

II. THE RISE AND FALL OF REHABILITATION IN THE 20TH CENTURY

At the turn of the 20th century, rehabilitation gained ascendancy over competing ideas as the goal of criminal justice. Widespread criminal justice policy changes aimed at reforming offenders were underway. This was an initial attempt at pouring new wine into new bottles that included the establishment of a juvenile justice system, as well as a parallel trend towards rehabilitation-oriented policies in the adult criminal justice system. However, by the end of the 20th century, the zeal for rehabilitation had faded, retribution returned, and historically unprecedented growth in

6. See generally SLOBOGIN & FONDACARO, *supra* note 2.

incarceration rates followed.⁷ As we lay the groundwork for the rebirth of rehabilitation, it will be helpful to recall the history of the rise and fall of rehabilitation in the 20th century, and to understand the causes of its decline.

A. The Rise of Rehabilitation

Prior to the 20th century, juveniles charged with crimes were tried in adult courts. Applying common law principles, the adult courts exempted children under the age of seven from criminal responsibility; gave a rebuttable presumption of irresponsibility to children between seven and fourteen; and held children over fourteen fully responsible.⁸ Typically, a child tried and convicted would receive his or her punishment—incarceration—alongside adults.⁹ The creation of the first juvenile court in Illinois in 1899 marked a dramatic shift away from this approach.¹⁰ The purpose of the court was no longer to punish children; it was to rehabilitate them. The intellectual cornerstone of the movement, as Francis Cullen would later describe it, was the belief that “human behavior is the product of antecedent causes.”¹¹ This change in purpose was accompanied by a transformation in judicial procedure. Unlike an adult criminal court, which employs adversarial principles to apportion blame, early juvenile courts employed informal civil proceedings to address a child’s needs. As Jane Addams observed at the opening of the Chicago Juvenile Court in 1899:

[The] child was brought before the judge with no one to prosecute him and with no one to defend him—the judge and all concerned were merely trying to find out what could be done on his behalf. The element of conflict was absolutely eliminated and with it, all notion of punishment as such with its curiously belated connotation.¹²

Thus, the vintage of the time was a civil and therapeutic approach to juvenile crime, poured into lax procedural safeguards seen as better suited to achieving rehabilitative ends.

7. See JEREMY TRAVIS ET AL., *THE GROWTH OF INCARCERATION IN THE UNITED STATES: EXPLORING CAUSES AND CONSEQUENCES* 335-36 (2014).

8. *Stanford v. Kentucky*, 492 U.S. 361, 368 (1989).

9. See generally PAUL R. KFOURY, *CHILDREN BEFORE THE COURT: REFLECTIONS ON LEGAL ISSUES AFFECTING MINORS* 37 (2d ed. 1991).

10. Barry C. Feld, *Abolish the Juvenile Court: Youthfulness, Criminal Responsibility, and Sentencing Policy*, 88 J. CRIM. L. & CRIMINOLOGY 68, 71-72 (1997).

11. Francis. A. Allen, *Criminal Justice, Legal Values and the Rehabilitative Ideal*, 50 J. CRIM. L. & CRIMINOLOGY 226, 226 (1959).

12. JANE ADDAMS, *MY FRIEND, JULIA LATHROP* 137 (1935).

Similarly, the rehabilitative ideal gained traction in the adult criminal justice setting. Ironically, rehabilitation in adult criminal justice can be traced all the way back to 1829, at the birth of the penitentiary, which was conceived as a means of reform *plus* punishment.¹³ To be sure, such use of confinement for the purpose of reform was regarded as progressive in comparison to earlier forms of torture. Indeed, the goal of reform was written into the very name of the penitentiary, whose Latin root is penitence, and where prisoners were sent for reform through penance.¹⁴ Even so, the rise of rehabilitation as it is understood today would have to wait until the first two decades of the 20th century, known as the Progressive Era. It was during this period that indeterminate sentencing, parole, and probation were developed as vehicles for the delivery of individual treatment.¹⁵ The premise of such interventions was the notion that criminals' minds were diseased and that, through treatment and probation, offenders could be reformed.¹⁶ Accordingly, a criminal sentence was complete not after a fixed period of time, but when criminal justice administrators determined that a prisoner was "cured."¹⁷ The prison gates were thus "flung open to let clinicians in," with whom the discretion to shorten or lengthen a sentence now resided.¹⁸ From the 1950s to 1970s, programs utilized in prisons included individual counseling, group counseling, behavioral modification, vocational training, work release, and education. This "medical model" was consistent with the idea that the causes of criminality could be "diagnosed" and treated.¹⁹

B. The Decline of Rehabilitation in Juvenile Justice

The decline of the juvenile court started in the late 1960s.²⁰ By that time, the nation had lost confidence in the juvenile justice system's capacity to save every child.²¹ Some pointed to rising rates of juvenile crime and recidivism as evidence that rehabilitation had failed.²² Others pointed to

13. Edward L. Rubin, *The Inevitability of Rehabilitation*, 19 L. & INEQ. 343, 350, 352 (2001).

14. Marvin E. Wolfgang, *The Medical Model versus the Just Deserts Model*, 16 J. AM. ACAD. PSYCHIATRY L. 111, 116 (1988).

15. Francis T. Cullen & Paul Gendreau, *Assessing Correctional Rehabilitation: Policy, Practice, and Prospects*, 3 CRIM. JUST. 109, 117 (2000).

16. Wolfgang, *supra* note 14, at 116.

17. *Id.*

18. DAVID FOGEL, "WE ARE THE LIVING PROOF:" THE JUSTICE MODEL FOR CORRECTIONS 51 (1975).

19. Cullen & Gendreau, *supra* note 15, at 117.

20. Patricia Connell, *Juvenile Justice in the Year 2005?*, 9 J. CLINICAL CHILD PSYCHOL. 113, 113 (1980).

21. *Id.* at 116.

22. Anna L. Simpson, *Rehabilitation as the Justification of a Separate Juvenile Justice System*, 64 CAL. L. REV. 984, 987-88 (1976).

studies showing that treatment of juvenile offenders, if offered at all, did not work or, worse, *increased* recidivism.²³ On the other hand, some suggested that this was not the failure of the rehabilitative ideal at all, but instead resulted from a lack of resources,²⁴ or the lack of consensus among professionals regarding the proper end of rehabilitation: was its goal to strengthen personal autonomy or capacity for adjustment to social expectations?²⁵ The Supreme Court of the United States, in a series of juvenile justice decisions—*Kent v. United States*,²⁶ *In re Gault*,²⁷ and *In re Winship*²⁸—sided against rehabilitation by extending a panoply of due process protections to minors. One of the chief justifications for tightening procedural safeguards, as Justice Fortas explained, was concern that the “child receives the worst of both worlds: that he gets neither the protections accorded to adults nor the solicitous care and regenerative treatment postulated for children.”²⁹

By the 1980s, retributive policies were ascendant. The attitude of the day was exemplified by the rally cry: “Get tough on crime.” Against this backdrop, violent juvenile crime, especially homicide, spiked. Moreover, the specter of “super-predators” was raised. The rhetoric of the day exclaimed that:

America is now home to thickening ranks of ‘super-predators’—radically impulsive, brutally remorseless youngsters, including even more preteenage boys who murder, assault, rape, rob, burglarize, deal deadly drugs, join gun-toting gangs, and create serious communal disorder. They do not fear the stigma of arrest, the pains of imprisonment, or the pangs of conscience.³⁰

James Q. Wilson painted an even more ominous picture, predicting that:

[J]ust beyond the horizon, there lurks a cloud that the winds will bring over us By the end of this decade there will be a million more people between the ages of fourteen and

23. Connell, *supra* note 20, at 115.

24. JUSTINE WISE POLIER, JUVENILE JUSTICE IN DOUBLE JEOPARDY: THE DISTANCED COMMUNITY AND VENGEFUL RETRIBUTION 4 (2014).

25. FRANCIS A. ALLEN, THE DECLINE OF THE REHABILITATIVE IDEAL: PENAL POLICY AND SOCIAL PURPOSE 52 (1981).

26. 383 U.S. 541 (1966).

27. 387 U.S. 1 (1967).

28. 397 U.S. 358 (1970).

29. *Kent v. U.S.*, 383 U.S. at 556.

30. WILLIAM J. BENNETT ET AL., BODY COUNT: MORAL POVERTY . . . AND HOW TO WIN AMERICA’S WAR AGAINST CRIME AND DRUGS 27 (1996).

seventeen than there are now This extra million will be half male. Six percent of them will become high-rate, repeat offenders—30,000 more young muggers, killers, and thieves than we have now. Get ready.³¹

Consistent with retributive principles, the solution was: “adult time for adult crime.”³² Thus, many states adopted policies to “transfer” children to adult court at younger ages, often under automatic transfer statutes, which stripped discretion from juvenile court judges by categorically transferring classes of offenses and offenders.³³

C. The Decline of Rehabilitation in the Adult Criminal Justice System

During the 1970s, the retributive notion of “just deserts”—linking the seriousness of the crime to the severity of the punishment—was trumpeted, along with the goal of preventing crime through deterrence and incapacitation.³⁴ In 1974, social scientist Robert Martinson’s evaluation of numerous rehabilitation programs was perceived to have demonstrated that “nothing works” to reduce recidivism.³⁵ Further movement away from rehabilitation continued during the “get tough on crime” era of the 1980s, especially for drug and violent crimes, which included mandatory minimum sentences, long determinate sentences, three strikes laws, truth in sentencing laws, elimination of discretionary parole, and life without parole sentences. Overall, throughout the 20th century, achieving rehabilitation proved elusive. Even so, public support for it endured,³⁶ and rehabilitation efforts continued in some corners of the criminal justice system, notwithstanding the collapse of the rehabilitative ideal and the rise of retribution.³⁷

31. JAMES Q. WILSON & JOAN PETERSILIA, *CRIME AND PUBLIC POLICY* 507 (1995).

32. Laura S. Abrams, *Juvenile Justice at a Crossroads: Science, Evidence, and Twenty-First Century Reform*, 87 SOC. SERV. REV. 725, 726 (2013).

33. Elizabeth S. Scott & Laurence Steinberg, *Adolescent Development and the Regulation of Youth Crime*, 18 FUTURE CHILD. 15, 17-18 (2008).

34. Donald A. Andrews & James Bonta, *Rehabilitating Criminal Justice Policy and Practice*, 16 PSYCHOL. PUB. POL’Y & L. 39, 40 (2010); TRAVIS ET AL., *supra* note 7, at 321.

35. Robert Martinson, *What works?—questions and answers about prison reform*, 35 PUB. INT. 22, 22-54 (1974).

36. Brandon K. Applegate et al., *Public Support for Correctional Treatment: The Continuing Appeal of the Rehabilitative Ideal*, 77 PRISON J. 237, 251-52 (1997).

37. Michelle S. Phelps, *Rehabilitation in the Punitive Era: The Gap Between Rhetoric and Reality in U.S. Prison Programs*, 45 L. & SOC. REV. 33, 37 (2011).

III. CONSEQUENCES OF THE DECLINE OF REHABILITATION

As noted above, America's movement away from offender rehabilitation was further prompted by Martinson's seminal conclusion that "nothing works."³⁸ This pessimistic view about the body of research on rehabilitation, coupled with rising public sentiments of fear and anger toward crime and the rebirth of retribution and "just desert" as a limitation on government authority, played out in the courtroom through an increased fixation on culpability and the assignment of increasingly retributive sanctions. The rationale: If nothing worked in curtailing the problem, wrongdoers should at least suffer the deserved consequences for their moral transgressions. For both juveniles and adult offenders, this confluence of factors translated into more time behind bars.

A. *Consequences for Juveniles*

The 1980s "tough on crime" movement saw perhaps the most significant changes within juvenile justice. In the courtroom, this meant an increased emphasis on due process, confidentiality limitations, and a rapidly expanding ability to transfer minors to adult criminal court.³⁹ The shift in focus toward blame-placing and retributive punishment led, in part, to a 72% increase in youth detention over the next ten years.⁴⁰ In 1975, for example, 241/100,000 United States youths were detained in some capacity (e.g. waiting for trial, living out sentences in juvenile detention facilities or adult prisons, etc.).⁴¹ By 1995, detention rates reached their maximum to date at 381/100,000.⁴² Still today, 225/100,000 youths are detained annually, and only 25% of these cases relate to violent offenses.⁴³ While youth detention rates have notably dropped over the last thirty-five years, the United States continues to incarcerate significantly more of its youths than any other developed nation.

38. Martinson, *supra* note 35, at 48.

39. BARRY C. FELD, *BAD KIDS: RACE AND THE TRANSFORMATION OF THE JUVENILE COURT* 79 (1999); PATRICIA TORBET & LINDA SZYMANSKI, OFFICE OF JUVENILE JUSTICE & DELINQUENCY PREVENTION, STATE LEGISLATIVE RESPONSES TO VIOLENT JUVENILE CRIME: 1996-97 UPDATE 8 (1998); Jeffrey A. Butts & Daniel P. Mears, *Reviving Juvenile Justice in a Get-Tough Era*, 33 *YOUTH & SOC.* 169, 169 (2001).

40. BARRY HOLMAN & JASON ZIEDENBERG, JUSTICE POLICY INST., *THE DANGERS OF DETENTION: THE IMPACT OF INCARCERATING YOUTH IN DETENTION AND OTHER SECURE FACILITIES* 12 (2006).

41. *Youth Incarceration in the United States*, THE ANNIE E. CASEY FOUND. (Feb. 26, 2013), <http://www.aecf.org/m/resourcedoc/aecf-YouthIncarcerationInfographic-2013.pdf> [hereinafter *Youth Incarceration in the United States*].

42. *Id.*

43. *Id.*

Research consistently suggests that juvenile detention not only fails to correct delinquent behaviors, it often worsens them.⁴⁴ This is, in part, due to the types of behaviors fostered within substandard living conditions. At least one-third of juvenile detention centers are overcrowded and understaffed, creating environments that breed neglect and violence.⁴⁵ Self-report studies suggest that upwards of 95% of detained youths experience some type of abuse (i.e. sexual, physical, verbal, emotional, starvation, unnecessary use of solitary confinement) each year, much of which is linked to the development of lasting psychological problems (e.g. depression, PTSD) post-release.⁴⁶

The rise of criminal incarceration and juvenile detention coincided with the decline of public reliance on institutions for treating the mentally ill.⁴⁷ This effectively meant that juvenile justice became the “dumping ground” for youths who were otherwise untreatable or uncontrollable by their parents. Since then, about two-thirds of detained youths enter the system with some sort of preexisting mental disorder, and at least half of those require—yet do not always receive—clinical care.⁴⁸ Youths with preexisting mental disorders are especially at risk of becoming worse psychologically during their time behind bars. Furthermore, regardless of a youth’s preexisting condition, depression becomes a rising concern in this population. Over 33% of incarcerated youths report feelings of hopelessness, 10% report suicide ideation, and another 11% actually attempt to take their own lives.⁴⁹ Detention further instills youths with lasting, maladaptive psychological tendencies, including limited impulse or aggression control and lessened abilities to make socially competent decisions.⁵⁰

Punitive responses to juvenile crime such as incarceration additionally fail to meet youths’ criminogenic needs, leaving the causes of their initial

44. Mark W. Lipsey, *The Primary Factors That Characterize Effective Interventions with Juvenile Offenders: A Meta-Analytic Overview*, 4 VICTIMS & OFFENDERS 124, 128 (2009).

45. HOWARD N. SNYDER & MELISSA SICKMUND, OFFICE OF JUVENILE JUSTICE & DELINQUENCY PREVENTION, JUVENILE OFFENDERS AND VICTIMS: 2006 NATIONAL REPORT 96 (2006).

46. Carly B. Dierkhising, Andrea Lane & Misaki N. Natsuaki, *Victims Behind Bars: A Preliminary Study on Abuse During Juvenile Incarceration and Post-Release Social and Emotional Functioning*, 20 PSYCHOL. PUB. POL’Y & L. 181, 186 (2014).

47. HOLMAN & ZIEDENBERG, *supra* note 40, at 8.

48. Thomas Grisso, *Double Jeopardy: Adolescent Offenders with Mental Disorders*, ADLP EXEC. SUMMARY (Chi. Univ. Press, Chi., Ill.), 2006, at 1, available at <http://www.adjj.org/downloads/5314Double%20Jeopardy.pdf>.

49. KAREN M. ABRAM ET AL., OFFICE OF JUVENILE JUSTICE & DELINQUENCY PREVENTION, SUICIDAL THOUGHTS AND BEHAVIORS AMONG DETAINED YOUTH 5 (2014).

50. Julia Dmitrieva, Kathryn C. Monahan, Elizabeth Cauffman & Laurence Steinberg, *Arrested Development: The Effects of Incarceration on the Development of Psychosocial Maturity*, 24 DEV. & PSYCHOPATHOLOGY 1073, 1083 (2012).

behaviors largely unaddressed through detention.⁵¹ One recent study of eight hundred and eight Seattle youths compared two groups of youths convicted for similar level offenses yet assigned to either detention or community corrections.⁵² Results, which mirrored those of several studies to come before it, unveiled that detained youths became four times more likely to be incarcerated by their early thirties than their community-sanctioned peers.⁵³ Yet another study highlighted juvenile detention as a significantly better predictor of re-offending within the next year than parental relationships, gang membership, or weapon ownership.⁵⁴

In recent years, social scientists from a variety of fields have sought to answer the question of why juvenile detention is such a strong predictor of future criminal involvement. Dishion, McCord, and Poulin suggested that this pattern might arise, in part, due to “peer deviancy training.”⁵⁵ According to this theory, treating youths at all risk-levels together exposes many to worse behaviors, which they then adopt with ease due to their increased susceptibility to peer influence during this stage of their psychosocial development.⁵⁶ While the age-crime curve peaks at seventeen for most individuals, this process is slowed for incarcerated youths, who may develop new problematic behaviors around this time, thus extending their period of crime-involvement beyond the norm.⁵⁷

Contributing further to formerly incarcerated youths’ risk for recidivism is this population’s lack of educational attainment. Research suggests that, on average, 41% of detained youths will not return to school post-release, and another 16% will dropout in less than five months.⁵⁸ In effect, youths who have been detained at some point in their lives are 39% less likely to

51. Ian Lambie & Isabel Randell, *The Impact of Incarceration on Juvenile Offenders*, 33 CLIN. PSYCHOL. REV. 448, 456 (2013).

52. Amanda B. Gilman, Karl G. Hill, & J. David Hawkins, *When is a Youth’s Debt to Society Paid? Examining the Long-Term Consequences of Juvenile Incarceration for Adult Functioning*, 1 J. DEV. & LIFE-COURSE CRIMINOLOGY 33, 36-42 (2015).

53. *Id.* at 43.

54. Brent B. Benda & Connie L. Tollett, *A Study of Recidivism of Serious and Persistent Offenders Among Adolescents*, 27 J. CRIM. JUST. 111, 120 (1999).

55. Thomas J. Dishion, Joan McCord & François Poulin, *When Interventions Harm: Peer Groups and Problem Behavior*, 54 AM. PSYCHOL. 755, 760 (1999).

56. *Id.* at 761-62.

57. David P. Farrington, *Age and Crime*, 7 CRIME & JUST. 189, 193 (1986); DAVID FARRINGTON, ALEX R. PIQUERO & WESLEY G. JENNINGS, OFFENDING FROM CHILDHOOD TO LATE MIDDLE AGE: RECENT RESULTS FROM THE CAMBRIDGE STUDY IN DELINQUENT DEVELOPMENT 15 (2013); Andrew Golub, *Termination Rate of Adult Criminal Careers* 26-27 (Sch. of Urban & Pub. Affairs, Working Paper No. 90-30, 1990), available at <https://www.ncjrs.gov/pdffiles1/Digitization/132878NCJRS.pdf>.

58. LINDA A. LEBLANC, JUDY C. PFANNENSTIEL, & MICHAEL D. TASHJIAN, UNLOCKING LEARNING: CHAPTER 1 IN CORRECTIONAL FACILITIES x (1991).

graduate high school than their non-detained peers, and even fewer will progress on to earn some sort of advanced degree.⁵⁹

Overall, the American juvenile justice system's shift away from rehabilitation and toward punishment has resulted in an increased reliance on juvenile detention. In an effort to deliver just-deserts for their moral wrongdoings, such sanctions remove largely non-threatening youths from their lives and developmental support systems with little regard for future impact on the individual or society. One of the key factors that will challenge a robust rebirth of rehabilitation in juvenile justice will be devising a system aimed at reducing violence among the most high risk offenders while refraining from stigmatizing or having harmful, iatrogenic effects on low risk offenders whose criminal behavior often reflects aspects of normative adolescent development.

B. Consequences for Adults

The 1980s "tough on crime" movement saw similar changes within adult criminal courts, although perhaps less prominent, as adult offenders historically have been treated more harshly than youths. In the early 1980s, the incarceration rate was 220 for every 100,000 United States residents, almost exclusively for violent offenses.⁶⁰ Today, the United States incarcerates 707 per 100,000 residents, many for non-violent offenses, with a total of 2.3 million people behind bars.⁶¹ This figure is over five times larger than the global average.⁶²

Such dramatic increase cannot be understood through rising crime rates alone. Rather, mass incarceration in America has been fueled by an increased likelihood that an individual will: A) be sent to prison, and B) be assigned to stay for a longer period of time, as prisons have risen as the predominant means of social control.⁶³ One contributing factor is the inclusion of "marginal crimes" among offenses punishable by

59. Anna Aizer & Joseph J. Doyle, Jr., *Juvenile Incarceration, Human Capital and Future Crime: Evidence From Randomly-Assigned Judges* 15 (Nat'l Bureau of Econ. Research, Working Paper No. 19102, 2013), available at <http://live.v1.udesa.edu.ar/files/UAEconomia/Seminarios/2013/Aizer2013.pdf>; David S. Kirk & Robert J. Sampson, *Juvenile Arrest and Collateral Educational Damage in the Transition to Adulthood*, 86 SOC. EDUC. 36, 55 (2013).

60. MELISSA S. KEARNEY, BENJAMIN H. HARRIS, ELISA JACOME & LUCIE PARKER, THE HAMILTON PROJECT, TEN ECONOMIC FACTS ABOUT CRIME AND INCARCERATION IN THE UNITED STATES 9 (2014).

61. LAUREN E. GLAZE & ERINN J. HERBERMAN, BUREAU OF JUSTICE STATISTICS, CORRECTIONAL POPULATIONS IN THE UNITED STATES, 2012 1 (2013).

62. See ROY WALMSLEY, INT'L CTR. FOR PRISON STUDIES, WORLD PRISON POPULATION LIST (TENTH EDITION) 1 (2013).

63. STEVEN RAPHAEL & MICHAEL A. STOLL, WHY ARE SO MANY AMERICANS IN PRISON? 97 (2013).

incarceration.⁶⁴ Drug offenses, for example, are presently punished for nearly twice the length of time typically sanctioned by other economically similar countries.⁶⁵ Policies such as “mandatory minimums” for non-violent drug offenses mean that each year, an increasing number of individuals are sanctioned with prison stays of over a year.⁶⁶

Similar to juveniles, a large proportion of incarcerated adults enter the system with preexisting illnesses, both physical and psychological, and even more develop them while inside. Sixty-one percent of violent offenders have some sort of diagnosable mental illness, and 74% suffer from substance dependency.⁶⁷ Depression is yet another mental illness that significantly impacts incarcerated populations. Suicide accounts for 32% of jail and 6% of prison deaths, indicating the seriousness of depression as an issue among inmates.⁶⁸ Sexual abuse is clearly a problem within prison walls as well, with over six hundred and five confirmed cases necessitating a recent Prison Rape Elimination Act, which has demonstrated only varying levels of success.⁶⁹ Despite the guarantee of basic health care, inmates suffer from increased rates of hypertension, asthma, arthritis, cervical cancer, and hepatitis as compared to community members.⁷⁰ Furthermore, communicable diseases such as HIV and tuberculosis spread quickly and with ease within prison settings; thus, significantly decreasing the inmate’s average lifespan projection.⁷¹

A documented process of prisonitization, while affecting those with mental illnesses perhaps more severely, leaves the majority of long-term prisoners further psychologically damaged by the time of their release.⁷² By the time of release, many offenders have developed a dependency on institutional structure, severe trust issues, social withdrawal, a limited sense of self-worth, and symptoms of post-traumatic stress disorder. Furthermore,

64. DON STEMEN, VERA INST. OF JUSTICE, RECONSIDERING INCARCERATION: NEW DIRECTIONS FOR REDUCING CRIME 7 (2007).

65. James P. Lynch & William A. Pridemore, *Crime in International Perspective*, in CRIME AND PUBLIC POLICY 5, 44 (James Q. Wilson & Joan Petersilia eds., 2010).

66. E. ANN CARSON, BUREAU OF JUSTICE STATISTICS, PRISONERS IN 2013 2 (2014).

67. DORIS J. JAMES & LAUREN E. GLAZE, BUREAU OF JUSTICE STATISTICS, MENTAL HEALTH PROBLEMS OF PRISON AND JAIL INMATES 1 (2006).

68. CHRISTOPHER J. MUMOLA, BUREAU OF JUSTICE STATISTICS, SUICIDE AND HOMICIDE IN STATE PRISONS AND LOCAL JAILS 1 (2005).

69. RAMONA R. RANTALA, JESSICA REXROAT, & ALLEN J. BECK, BUREAU OF JUSTICE STATISTICS, SURVEY OF SEXUAL VIOLENCE IN ADULT CORRECTIONAL FACILITIES, 2009-11: STATISTICAL TABLES 1 (2014).

70. I. A. Binswanger, P. M. Krueger & J. F. Steiner, *Prevalence of Chronic Medical Conditions Among Jail and Prison Inmates in the USA Compared with the General Population*, 63 J. EPIDEMIOLOGY & CMTY. HEALTH 912, 914 (2009).

71. Iacopo Baussano et al., *Tuberculosis Incidence in Prisons: A Systematic Review*, 7 PLOS MED. 1, 2-4 (2010).

72. CRAIG HANEY, THE PSYCHOLOGICAL IMPACT OF INCARCERATION: IMPLICATIONS FOR POST-PRISON ADJUSTMENT 77, 81 (2002), available at <http://aspe.hhs.gov/hsp/prison2home02/haney.pdf>.

former incarceration in conjunction with substance abuse disorders is highly predictive of depression, bipolar disorder, dysthemia, and/or substance abuse upon release.⁷³ Many of these issues are exacerbated by solitary confinement—yet another procedure originally meant to promote safety, but now commonly utilized as a form of retrospective punishment.⁷⁴ Hallucinations, amnesia, paranoia, and problems surrounding concentration, memory, and impulse control are exacerbated by the overutilization of solitary confinement. Each of these prolonged issues impacts an individual's ability to work, raise a family, and generally reintegrate back into society upon release.

Again, similar to trends in juvenile justice, adult incarceration fails to lessen crime rates and impedes upon future opportunities available to offenders once they are released. One study examined nearly one hundred and fifty thousand convicted adults, sentenced to either community corrections or incarceration, and found that community-corrections lessened recidivism rates, whereas incarceration had criminogenic effects, leading to above-average recidivism rates.⁷⁵ In 2008, research conducted by the Urban Institute revealed that only 45% of former inmates were able to secure jobs eight months post-release.⁷⁶ Given both the longevity and severity of this problem, lifetime earnings of formerly incarcerated men become, on average, 19% less than those who have not been incarcerated.⁷⁷

Incarceration places even further strains on one's family members, who indisputably are not legally guilty of anything, but suffer the consequences nonetheless. Couples dealing with paternal incarceration are significantly more likely to divorce and become financially dependent on the mother.⁷⁸ Parental engagement with one's children and other family members significantly decreases throughout their incarceration, due to difficulties surrounding transportation to visits, phone call expenses, and general tensions and emotional strains.⁷⁹ Reintegration of a parent back into the

73. Jason Schnittker, Michael Massoglia & Christopher Uggen, *Out and Down Incarceration and Psychiatric Disorders*, 53 J. HEALTH & SOC. BEHAV. 448, 459 (2012).

74. HANEY, *supra* note 72, at 77, 81.

75. William D. Bales & Alex R. Piquero, *Assessing the Impact of Imprisonment on Recidivism*, 8 J. EXPERIMENTAL CRIMINOLOGY 71, 97 (2011).

76. CHRISTY VISHER, SARA DEBUS, & JENNIFER YAHNER, URBAN INST., *EMPLOYMENT AFTER PRISON: A LONGITUDINAL STUDY OF RELEASEES IN THREE STATES* 6 (2008).

77. Bruce Western, *The Impact of Incarceration on Wage Mobility and Inequality*, 67 AM. SOC. REV. 526, 536 (2002).

78. Leonard M. Lopoo & Bruce Western, *Incarceration and the Formation and Stability of Marital Unions*, 67 J. MARRIAGE & FAM. 721, 729 (2005); Amanda Geller, Irwin Garfinkel, & Bruce Western, *Paternal Incarceration and Support for Children in Fragile Families*, 48 DEMOGRAPHY 25, 43 (2011).

79. Raymond R. Swisher & Maureen R. Waller, *Confining Fatherhood Incarceration and Paternal Involvement Among Nonresident White, African American, and Latino Fathers*, 29 J. FAM. ISSUES 1067, 1082 (2008).

household routine presents yet another challenge for the family—reassuming the role of a competent caregiver poses particular challenges for individuals grappling with readjustment and lingering psychological effects of their incarceration.⁸⁰

As noted with juveniles, a retributive criminal justice system introduces offenders to long-term risks that not only increase their chances of repeating the same problematic behaviors, but also present challenges to their personal and family lives—which are arguably more than deserved, anticipated, or beneficial to society as a whole—and well beyond the bounds of proportionate, retributive punishment.

C. Social Consequences

From a macro perspective, incarceration trends grounded in retributive principles of criminal responsibility appear to follow a distinct set of patterns that systemically disadvantage certain social groups. Disproportionate minority contact (DMC) is perhaps the most obvious example of this. Recent juvenile justice statistics demonstrate how, despite being the demographic minority, black youths are four times more likely to be detained (605/100,000) than Hispanic (229/100,000) or white youths (127/100,000), leaving them to make up about 61% of detention populations.⁸¹ For adults, recent statistics suggest that 3% of all black men in America are currently incarcerated—making up 37% of prison populations—as opposed to only 0.5% of white men.⁸²

Further linking this pattern to bias rather than prevalence of criminal behavior, research suggests that the majority of this disparity is caused by the legal response to minor offenses.⁸³ While white youths self-report more drug usage than black youths, blacks are detained for drug offenses over twice as often as whites. Yet another study revealed that judges may be sentencing black and Hispanic youths to detention centers more frequently, due to a fear that they will reside in disadvantaged households and communities incapable of emotionally supporting them or helping them to desist in their criminal behavior.⁸⁴

Yet another negative social consequence surfaces in the economic disparities reaffirmed by incarceration. The future prospects of many black

80. HANEY, *supra* note 72, at 77, 81.

81. *Youth Incarceration in the United States*, *supra* note 41; SARAH HOCKENBERRY, OFFICE OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION, JUVENILES IN RESIDENTIAL PLACEMENT, 2010 1-15; MELISSA SICKMUND, T. J. SLADKY & WEI KANG, OFFICE OF JUVENILE JUSTICE & DELINQUENCY PREVENTION, CENSUS OF JUVENILES IN RESIDENTIAL PLACEMENT DATABOOK 1 (2004).

82. Carson, *supra* note 66, at 2.

83. SICKMUND, SLADKY & KANG, *supra* note 81, at 1.

84. Nancy Rodriguez, *Concentrated Disadvantage and the Incarceration of Youth: Examining How Context Affects Juvenile Justice*, 50 J. RES. CRIME & DELINQUENCY 189, 203 (2013).

men in America are typically bleak at best, due in part, to social institutions such as the criminal justice system, which exert social control over them. The phrase “school to prison pipeline” has been coined to represent the mechanism by which black high school dropouts have a greater chance of being incarcerated than being employed.⁸⁵ Black men without high school diplomas have a nearly 70% chance of incarceration.⁸⁶ Even with a high school degree, black men are more likely to spend time behind bars than graduate from a four-year college.⁸⁷ Given the high costs of incarceration and the questionable difference it makes in crime rates and public safety, social scientists Pettit and Western argue vehemently that, were social control over minorities not a primary concern, the same amount of money could be funneled into education, employment, and self-sufficiency initiatives with markedly greater results.⁸⁸

Lastly, DMC contributes to a cycle wherein the children of incarcerated families, which are largely black, suffer an increased risk for future incarceration and general hardships as well. The aforementioned finding that the formerly incarcerated make significantly less money over their lifetimes is further alarming in the context of DMC. The mass incarceration of minorities further disadvantages these communities through the impact on their rates of poverty, hindered upward mobility, and concentrated disadvantages that confront the next generation with very steep challenges.⁸⁹ At a macro level, schools with higher rates of parental incarceration have students with lower grade point averages, educational achievement, and college completion percentages.⁹⁰ Parental incarceration is more specifically associated with an increase in child aggression, problem behavior, delinquency, arrests, and limited educational attainment.⁹¹ As a consequence, a significant change in the system—and increased social

85. BECKY PETTIT, *INVISIBLE MEN: MASS INCARCERATION AND THE MYTH OF BLACK PROGRESS* 20 (2012).

86. KEARNEY, HARRIS, JACOME & PARKER, *supra* note 60, at 11.

87. Becky Pettit & Bruce Western, *Mass Imprisonment and the Life Course: Race and Class Inequality in U.S. Incarceration*, 69 AM. SOC. REV. 151, 164 (2004).

88. Bruce Western & Becky Pettit, *Incarceration and Social Inequality*, 139 DAEDALUS 8, 18 (2010).

89. Western, *supra* note 77, at 538.

90. John Hagan & Holly Foster, *Intergenerational Educational Effects of Mass Imprisonment in America*, 85 SOC. EDUC. 259, 277-79 (2012).

91. Christopher Wildeman & Christopher Muller, *Mass Imprisonment and Inequality in Health and Family Life*, 8 ANN. REV. L. & SOC. SCI. 11, 25 (2012); Amanda Geller, Carey E. Cooper, Garfinkel Irwin, Ofira Schwartz-Soicher, & Ronald B. Mincy, *Beyond Absenteeism: Father Incarceration and Child Development*, 49 DEMOGRAPHY 49, 71 (2011); Michael E. Roettger & Raymond R. Swisher, *Associations of Fathers' History of Incarceration with Sons' Delinquency and Arrest Among Black, White, and Hispanic Males in the United States*, 49 CRIMINOLOGY 1109, 1135 (2011); Holly Foster & John Hagan, *The Mass Incarceration of Parents in America: Issues of Race/Ethnicity, Collateral Damage to Children, and Prisoner Reentry*, 623 ANNALS AM. ACAD. POL. & SOC. SCI. 179, 190 (2009).

supports and resources—are necessary to help minority communities in their efforts to overcome these challenges and break this cycle.

D. Economic Consequences

Beyond the economic impact on generations of former inmates who produce and earn less than their economic worth due to the stigma associated with incarceration, the costs of running such a retributive system are staggering. The current juvenile justice system costs the United States \$5 billion per year.⁹² Detention is arguably the most expensive aspect of this system, and as public reliance on this practice grew throughout the 1990s, juvenile justice spending increased by 43%.⁹³ The cost of detaining one youth ranges on average from \$87 to \$178 per day, which equates to roughly \$32,000 - \$65,000 per year.⁹⁴ Beyond that expense, formerly detained youths are significantly more likely to require public financial assistance by their early thirties than youths with justice system experience but no instances of detention.⁹⁵

Adult incarceration is costly as well—even more so than juvenile detention, given the far greater number of incarcerated adults. In 2010, the United States spent over \$80 billion toward corrections, a more than fourfold increase over the amount spent in the 1980s.⁹⁶ To date, fewer efforts have been made to study or calculate the costs saved by alternative responses to adult crime, in part, due to our crippling reliance on casting blame and imposing retributive punishment on such offenders, whom we largely deem unworthy of anything else.

More research focuses on the costs of potentially rehabilitating—or punishing less severely—juvenile offenders. Pursuing alternatives to detention—which cost, on average \$25 per day—can save taxpayers as much as seven times the expense of detention. In addition to being less expensive, alternatives to juvenile detention generally reap greater financial rewards over time. A lifetime of crime and justice system involvement can cost the state upwards of \$1.7 million, making successful interventions particularly important from an economic standpoint.⁹⁷ For every dollar spent on juvenile justice, detention produces \$1.98 in crime reduction related savings, diversion and mentoring programs produce \$3.36 in

92. RICHARD A. MENDEL, THE ANNIE E. CASEY FOUND., NO PLACE FOR KIDS: THE CASE FOR REDUCING JUVENILE INCARCERATION 20 (2011).

93. AOS, MILLER & DRAKE, *supra* note 3, at 2.

94. HOLMAN & ZIEDENBERG, *supra* note 40, at 10.

95. Gilman, Hill & Hawkins, *supra* note 52, at 43.

96. KEARNEY, HARRIS, JACOME & PARKER, *supra* note 60, at 13.

97. Mark A. Cohen, *The Monetary Value of Saving a High-Risk Youth*, 14 J. QUANTITATIVE CRIMINOLOGY 5, 27 (1998).

savings, aggression-oriented programs produce \$10 in savings, and multisystemic therapy (MST) produces \$13 in savings.⁹⁸ From a financial perspective alone, it becomes clear that proactive, treatment-oriented responses to youth crime are more beneficial than retrospective, retributive ones. However, one of the key challenges of moving from backward-looking retributive punishment to forward-looking alternative responses to crime is taking successful, evidence-based interventions and policy reforms from the stage of initial demonstration at the local level up to scale at the state and national levels.

IV. INGREDIENTS FOR THE REBIRTH OF REHABILITATION

Although the cumulative costs of our exceptionally punitive criminal justice systems have been staggering, recent advances in social, behavioral, and neuroscience research have provided new insights about the causes and consequences of criminal behavior that are beginning to challenge fundamental legal principles of criminal responsibility and the legitimacy and efficacy of retributive responses to criminal behavior.⁹⁹ This foundational research, coupled with recent theory and research on life course development,¹⁰⁰ and clinical research on evidence-based interventions that reduce recidivism rates among both juveniles and adults,¹⁰¹ is beginning to pave the way for the rebirth of rehabilitation in American criminal justice. We will begin our review of these recent advances by focusing on their relevance to juvenile justice reform and then consider their implications for adult criminal justice reform more broadly.

A. Juvenile Offenders

The philosophy and practices that guided the founding rehabilitative focus of the juvenile justice system were grounded largely in good intentions and common sense. The scientific study of human behavior, especially systematic empirical research, was still in its infancy. Sigmund Freud had just published his seminal work on the interpretation of dreams in 1899,¹⁰² the same year that launched the first juvenile justice system in Illinois.¹⁰³ Freud's early theoretical work, which focused on understanding

98. AOS, MILLER & DRAKE, *supra* note 3, at 7.

99. See Mark R. Fondacaro, *Rethinking the Scientific and Legal Implications of Developmental Differences Research in Juvenile Justice*, 17 NEW CRIM. L. REV. 407 (2014).

100. See Paul B. Baltes, *Theoretical Propositions of Life-Span Developmental Psychology: On the Dynamics of Growth and Decline*, 23 DEVELOPMENTAL PSYCHOL. 611 (1987).

101. See Nana A. Landenberger & Mark W. Lipsey, *The Positive Effects of Cognitive-Behavioral Programs for Offenders: A Meta-Analysis of Factors Associated with Effective Treatment*, 1 J. EXPERIMENTAL CRIMINOLOGY 451, 470 (2005).

102. SIGMUND FREUD, *THE INTERPRETATION OF DREAMS* (3d ed., Macmillan) (1913).

103. Feld, *supra* note 10, at 71.

and treating anxious adults who internalized their problems, nonetheless had a profound impact throughout the first half of the 20th Century on how clinicians and practitioners conceptualized child development and attempted to rehabilitate troubled youth.¹⁰⁴ It is not too surprising then that interventions, which were developed for verbal, relatively affluent adults who tended to internalize and blame themselves for their problems, would not be highly successful for children who tended to come from lower socioeconomic backgrounds and tended to act out and externalize their problems. Beginning with the theoretical work of social psychologist Kurt Lewin,¹⁰⁵ followed by the theoretical and empirical work of community psychologist Rudolph Moos¹⁰⁶ and developmental psychologist Urie Bronfenbrenner,¹⁰⁷ psychologists began to move beyond the predominantly intrapsychic model of human behavior proposed by Freud and his followers toward a more social ecological model.

From a social ecological perspective, why a person, including a child, behaves, thinks, and feels the way he or she does on a particular occasion is based on the ongoing, dynamic transaction between the person and aspects of his or her social context. Relevant personal characteristics that may influence a child's behavior include, but are not limited to, temperament, intelligence, impulsivity, cognitive and social skills, genetic vulnerabilities, and neurobiological structure and functioning. Similarly, some of the relevant contextual factors that may influence behavior include family, peer, school, neighborhood, and community influences.¹⁰⁸ Note that unlike traditional legal models of criminal responsibility that presume that criminal conduct can be understood and fairly judged by determining what a person was or was not thinking (i.e., *mens rea*) while engaging in an illegal act (i.e., *actus reus*), a social ecological analysis suggests a broader focus. For example, determining why a teenage boy physically assaulted and killed another boy his age requires more than just divining what he was thinking at the time he threw the first punch—if he was thinking at all. Divining whether his purpose was to kill, or whether he did so knowingly, or was merely reckless or negligent, would probably tell us as much or more about the person or persons doing the judging as it would about what was or was not going on inside the boy's head at the time of the assault. Human

104. See Mark R. Fondacaro & Lauren G. Fasig, *Judging Juvenile Responsibility: A Social Ecological Perspective*, in HANDBOOK OF CHILDREN, CULTURE, AND VIOLENCE 355, 359-60 (Nancy E. Dowd et al. ed., 2006).

105. See KURT LEWIN, PRINCIPLES OF TOPOLOGICAL PSYCHOLOGY 166-92a (1935).

106. See Rudolf H. Moos, *Conceptualizations of Human Environments*, 28 AM. PSYCHOLOGIST 652, 652-65 (1973).

107. See URIE BRONFENBRENNER, THE ECOLOGY OF HUMAN DEVELOPMENT: EXPERIMENTS BY NATURE AND DESIGN (1979).

108. SLOBOGIN & FONDACARO, *supra* note 2, at 19-28.

behavior is much more complex than that and criminal behavior reflects much more than a bad personal decision at a particular point in time. Understanding why this boy, and not another boy his same age, would assault and kill a peer would require an understanding of the constellation of the interrelated personal and social risk factors that fueled aggressive behavior in the assaultive youth.

During the second half of the 20th Century, researchers began to document the personal and social characteristics that, in combination, were associated with increased risk for aggressive and delinquent behavior.¹⁰⁹ Based on these findings, intervention researchers began to target dynamic or changeable risk factors (e.g., social skill deficits, family conflict, association with deviant peers, etc.) and to use them as levers for therapeutic change away from delinquent conduct and toward pro-social behavior.¹¹⁰ As we shall see, this body of research can and should play a foundational role in the rebirth of rehabilitation across both the juvenile and adult criminal justice systems.

To date, however, much of the empirical research, especially research on developmental differences between adolescents and adults, has not been aimed squarely at rehabilitation. Rather, the emphasis among developmental researchers and child advocates has been on promoting the adoption of a diminished culpability model of juvenile justice—a model that aligns more squarely with traditional doctrines of criminal responsibility focused on backward, retrospective mind reading and blame (i.e., *mens rea* analysis) rather than on forward-looking rehabilitation.¹¹¹ Moreover, grounding developmental differences research in a diminished culpability model for juveniles has had the unintended effect of fortifying retributive justifications for punishing adults.¹¹² Although a comprehensive review of this body of research and legal scholarship is beyond the scope of this paper, we will highlight some of the key findings and issues.

Adolescence is the Mount Everest of the age-crime curve: crime rates climb sharply to a peak at about seventeen, and then decline precipitously.¹¹³ During the 20th century, as we have seen, two policy experiments were conducted to solve the problem of juvenile crime. In the first half of the century, lax judicial procedures were combined with interventions aimed at changing the intra-psychic functioning and

109. *Id.*

110. *Id.* at 28-35.

111. Laurence Steinberg & Elizabeth S. Scott, *Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty*, 58 AM. PSYCHOL. 1009, 1011 (2003).

112. See generally Fondacaro, *supra* note 99.

113. David P. Farrington, *Age and Crime*, 7 CRIME AND JUST. 189, 235 (1986).

personality make-up of the child.¹¹⁴ In the second half, stringent judicial procedures were combined with harsh punishments.¹¹⁵ More recently, developmental psychologists and child advocates have pushed juvenile justice in a third direction. The new direction is founded on experimental research that shows age-based differences between juveniles and adults. This body of research has demonstrated that adolescents are developmentally immature: they have less capacity than adults to exercise self-control of impulses;¹¹⁶ are less future-oriented than young adults;¹¹⁷ and are more susceptible to peer influence.¹¹⁸

Consistent with these findings, neuroscience shows continuing brain development during adolescence. Though the human brain was once thought to reach anatomical maturity within the first three years of a child's life,¹¹⁹ research now shows that the brain does not mature until well into adulthood. Several key neurological changes that occur during adolescence have been identified. Generally speaking, these changes occur in: A) the cerebral cortex, which is involved in executive control; B) the limbic system, which is involved in motivation and emotion; and C) to the connections between the two. First, findings suggest that the limbic system has a head start relative to the cortex: although still developing into adolescence, the limbic system reaches maturity first.¹²⁰ Second, white matter, whose role is to transmit information between neurons, increases during adolescence.¹²¹ Third, gray matter, whose primary role is to process information, follows an inverted U shaped curve with volumes that peak at different times in different lobes during adolescence.¹²²

Evidence from studies of the interplay of the cortex and the limbic system has led researchers to posit an "imbalance model" of brain development.¹²³ According to the model, interaction between the cortex and

114. See generally SLOBOGIN & FONDACARO, *supra* note 2.

115. See generally *id.*

116. Laurence Steinberg et al., *Age Differences in Future Orientation and Delay Discounting*, 80 CHILD DEVELOPMENT 28, 40 (2009).

117. *Id.* at 39.

118. Margo Gardner & Laurence Steinberg, *Peer Influence on Risk Taking, Risk Preference, and Risky Decision Making in Adolescence and Adulthood: An Experimental Study*, 41 DEVELOPMENTAL PSYCH. 625, 632 (2005).

119. See generally JOHN T. BRUER, THE MYTH OF THE FIRST THREE YEARS: A NEW UNDERSTANDING OF EARLY BRAIN DEVELOPMENT AND LIFELONG LEARNING (1999).

120. B. J. Casey, Rebecca M. Jones & Todd A. Hare, *The Adolescent Brain*, 1124 ANNALS N.Y. ACAD. SCI. 111, 116 (2008).

121. Jay N. Giedd et al., *Brain Development During Childhood and Adolescence: A Longitudinal MRI Study*, 2 NATURE NEUROSCIENCE 861 (1999); Tomas Paus et al., *Structural Maturation of Neural Pathways in Children and Adolescents: In Vivo Study*, 283 SCI. 1908 (1999).

122. Rhoshel K. Lenroot & Jay N. Giedd, *Brain Development in Children and Adolescents: Insights from Anatomical Magnetic Resonance Imaging*, 30 NEUROSCIENCE & BIOBEHAVIORAL REV.'S 718, 723 (2006).

123. Casey, Jones & Hare, *supra* note 120, at 121.

the limbic system varies during the course of development. This is because motivational and emotional connections in the limbic system develop earlier than connections supporting cortical control.¹²⁴ This developmental imbalance occurs during adolescence and is believed to underlie the behavioral differences seen during this time. This period, during which the limbic system has outsize influence, has been dubbed the “risky period” of adolescence.¹²⁵

What are the behavioral ramifications of this maturational imbalance? In a study of self-control, researchers concluded that due to a tension between a mature reward circuit and a less mature cortex, adolescents exhibit less self-control.¹²⁶ In a study of reward seeking, researchers concluded that the imbalance between a “mature” subcortical system and “later maturing top-down control systems” biases adolescents “toward immediate over long-term gains;” that is, adolescents are more present-oriented.¹²⁷ In a study of peer-influence in adolescence, researchers found a heightened propensity to take risk in the presence of peers due to the “imbalance” of competing brain systems.¹²⁸ Notice that these findings mirror those of the behavioral findings above.

Juvenile justice reformers point to these converging lines of behavioral and neurobiological evidence as support for treating juveniles differently. The conclusion that they have drawn is that the immaturity of the adolescent mind diminishes the culpability of juveniles. Reformers relying on evidence of diminished culpability have recently enjoyed success in arguing that the diminished culpability of juveniles warrants leniency. For example, in a series of decisions, the Supreme Court of the United States endorsed the “diminished culpability” model of juvenile crime. In *Roper v. Simmons*,¹²⁹ the Supreme Court relied on developmental research in finding that capital punishment of juveniles violates the 8th amendment’s cruel and unusual clause: “Once the diminished culpability of juveniles is recognized, it is evident that the penological justification for the death penalty apply to them with lesser force than adults.”¹³⁰ In *Graham v. Florida*,¹³¹ relying on the same research, the Supreme Court struck down sentences of life without

124. Jason Chein et al., *Peers Increase Adolescent Risk Taking by Enhancing Activity in the Brain’s Reward Circuitry*, 14 DEVELOPMENTAL SCI. F1, F7 (2011).

125. Casey, Jones & Hare, *supra* note 120, at 116.

126. B. J. Casey & Kristina Caudle, *The Teenage Brain: Self Control*, 22 CURRENT DIRECTIONS PSYCHOL. SCI. 82, 86 (2013).

127. Adriana Galvan et al., *Risk-taking and the adolescent brain: who is at risk?*, 10 DEVELOPMENTAL SCIENCE F8, F13 (2007).

128. Chein et al., *supra* note 124, at F1, F7.

129. 543 U.S. 551 (2005).

130. *Id.* at 571.

131. 560 U.S. 48 (2010).

parole for juveniles in all but homicide cases.¹³² And then in *Miller v. Alabama*,¹³³ the Court extended the *Graham* holding to homicide cases as well.¹³⁴ Also, the diminished culpability analysis has played a role in recent policy reforms such as limitations to transfer jurisdiction.¹³⁵ The diminished culpability doctrine has thus been instrumental in tempering harsh retributive punishment of juveniles.

With that said, there are significant limitations to the use of “diminished culpability” as the basis for juvenile justice reforms. The first problem is that diminished culpability merely mitigates punishment, but still results in relatively harsh sanctions. Although the *Graham* Court held that the death penalty was unconstitutional as to juveniles, the defendant nevertheless stood to spend most of his life in prison. Even in the absence of capital punishment and mandatory life without parole, juvenile offenders often face severe punishments. The overwhelming weight of the evidence shows that such harsh punishments typically do juvenile offenders and the communities in which they live more harm than good.¹³⁶ Second, if culpability remains the linchpin of criminal liability in the juvenile justice system, then the diminished culpability model is not likely to lead to other meaningful reforms. That is because empirical research shows that, in other legally important ways, adolescents are not different from adults. For instance, already by the age of nine, juveniles can form criminal intent and appreciate the wrongfulness of their actions;¹³⁷ by ten or eleven, juveniles have been shown to have the capacity to make moral judgments based on judgments of intentions and motives;¹³⁸ and by sixteen, juveniles have the capacity to reason logically.¹³⁹ Moreover, much of the developmental differences research at the heart of the diminished culpability model is based on comparison of normative adolescent and adult development. Few studies have examined the extent to which adult *offenders*, especially those in the emerging adult age range (i.e., eighteen to twenty-five) may be indistinguishable from either typical adolescents or adolescent offenders on

132. *Id.* at 67-79.

133. 132 S. Ct. 2455 (2012).

134. *Id.* at 2460.

135. Elizabeth Scott, *Miller v. Alabama and the (Past and) Future of Juvenile Crime Regulation*, 31 L. & INEQ. 535, 548 (2012).

136. Anthony Petrosino et al., *Scared Straight and Other Juvenile Awareness Programs for Preventing Juvenile Delinquency: A Systematic Review Of The Randomized Experimental Evidence*, 589 ANNALS AM. ACAD. POL. & SOC. SCI. 41, 35 (2003).

137. Laurence Steinberg & Elizabeth Cauffman, *A Developmental Perspective on Jurisdictional Boundary*, in THE CHANGING BORDERS OF JUVENILE JUSTICE: TRANSFER OF ADOLESCENTS TO THE CRIMINAL COURT 379 (Jeffrey Fagan & Franklin E. Zimring eds., 2000).

138. Nuno Ferreira, *Putting the Age of Criminal and Tort Liability Into Context: A Dialogue Between Law and Psychology*, 16 INT’L J. CHILD. RTS. 29, 35 (2008).

139. Steinberg & Cauffman, *supra* note 137, at 379.

measures of psychosocial and neurobiological function due to the cumulative effects of life stressors on their development. Clearly, more research is needed that includes adult offenders as the relevant comparison group, not only in studies of psychosocial and neurobiological development, but also in research on the amenability of both juveniles and adults to rehabilitation. Finally, as noted above, the central tenet of social ecology is that human behavior cannot be understood bereft of contextual factors. Accordingly, judgments of human behavior based solely on the internal mental state of an individual are severely limited. Since the diminished culpability model is built on such notions about internal mental states, any broad conception of juvenile justice that is based on it will be out of step with the contemporaneous science of human behavior. As a result, continuing with the juvenile justice of “diminished culpability” comes at the loss of insights from a richer social ecological understanding of human behavior.

Over the past several decades, researchers employing a social ecological framework have identified a wide range of personal and social risk and resource factors that are related to delinquent behavior, including impulsivity, social skill deficits, family conflict, association with deviant peers, academic failure, and socioeconomic disadvantage.¹⁴⁰ Very recent research has begun to identify gene x environment interactions that increase risk for delinquent behavior as well.¹⁴¹ Gradually, as more and more is learned about the cumulative effects of interrelated social, psychological, and biological influences on human behavior, less and less room is left to support and sustain a model of criminal responsibility and punishment that relies almost exclusively on retrospective judgments of a defendant’s past mental state to calibrate culpability and severity of sanctions.

More recently, clinical investigators have capitalized on this body of research informed by a social ecological perspective and have developed comprehensive, multi-systemic interventions aimed at reducing dynamic or changeable risk factors (e.g., social skill deficits, association with deviant peers) among adolescent offenders with the goal of reducing rates of recidivism. These evidence-based interventions have proven highly successful when fully implemented, reducing recidivism rates from around 70% to just over 20%, even among serious offenders.¹⁴² Moreover, these interventions, and a range of other evidence-based interventions, have been shown to provide considerable cost savings in comparison to more

140. SLOBOGIN & FONDACARO, *supra* note 2, at 19-28.

141. *id.* at 27-28.

142. Charles M. Borduin et al., *Multisystemic Treatment of Serious Juvenile Offenders: Long-Term Prevention of Criminality and Violence*, 63 J. CONSULTING & CLINICAL PSYCHOL. 569, 573 (1995).

traditional punitive and retributive responses to juvenile crime. The old mantra that “nothing works” is no longer valid for juveniles. Moreover, recent evidence is challenging the assumption that adults cannot be rehabilitated.¹⁴³

In contrast, interventions not targeted at known risk factors have not fared well. For example, in a meta-analysis of boot camps, which employ militaristic tactics to instill discipline, researchers found no significant overall difference between participants and control groups.¹⁴⁴ Worse, in a meta-analysis of Scared Straight programs, which aims to frighten juveniles with prison visits, researchers found that the intervention is more harmful than doing nothing at all.¹⁴⁵

As we have seen, interventions that target dynamic or changeable risk factors and use them as levers for therapeutic change enjoy empirical support. This research clearly shows that adolescence is a period of change marked by vulnerability to risk, and amenability to treatment. We will now turn to a more in depth review of adult offenders and discuss the range of factors that can and should lay the foundation for the rebirth of rehabilitation in the adult criminal justices system as well.

B. Adult Offenders

In the previous section, we saw that the peak of the age-crime curve at seventeen coincides with adolescence, and that, by targeting changeable risk factors, multi-systemic interventions can reduce juvenile crime. To be sure, such a strategy has significant potential for improving public safety. However, soon after the age-crime curve begins its descent from seventeen, it enters adulthood, leaving the management of a large proportion of overall crime to the adult criminal justice system. This leads to the question of whether the foundation laid for the rebirth of rehabilitation of juveniles holds for adults.

From the standpoint of the law, the age of eighteen is regarded as an important cut-off between adolescence and adulthood: juvenile court jurisdiction typically applies to offenders who break the law before their eighteenth birthday; offenders above the cut-off age are tried in adult courts. However, the reason the age of eighteen was adopted as the endpoint of adolescence may have been based not on biological change, but social change such as the increasingly important milestone of high school

143. Maryann Davis et al., *Reducing Recidivism and Symptoms in Emerging Adults with Serious Mental Health Conditions and Justice System Involvement*, 42 J. BEHAV. HEALTH SERV. RES. 172 (2015); Landenberger & Lipsey, *supra* note 101, at 470.

144. Doris Layton MacKenzie et al., *Effects of Correctional Boot Camps on Offending*, 578 ANNALS AM. ACAD. POL. & SOC. SCI. 126 (2001).

145. Petrosino, *supra* note 136, at 41-62.

graduation.¹⁴⁶ So the separation between juvenile courts and adult courts appears to rest on happenstance; not empirical evidence. From the standpoint of developmental science, the age of eighteen is not particularly salient. At the start of the 20th century, Stanley Hall, who launched the study of adolescence as a unique developmental period, posited that adulthood did not begin until the age of twenty-five.¹⁴⁷ More recently, developmental science suggests that adolescence is not followed by adulthood, but rather by “emerging adulthood.” This period, roughly from eighteen to twenty-five, has been characterized as a period of continuing development and continuing risk.¹⁴⁸ This is supported by research showing that the prevalence of several types of risky behaviors peak after eighteen; for example, unprotected sex, most types of substance abuse, and drinking while driving.¹⁴⁹ Also, on some measures of the disaggregated age-crime curve, crimes against persons, as opposed to property, peak in the late teens and early twenties.¹⁵⁰ Nor does the brain regard eighteen as an important cut-off between adolescence and adulthood. Evidence shows that some aspects of brain development continue well into emerging adulthood and beyond. For example, in a brain mapping study, researchers found that maturation of the cortex continued well into young adulthood (defined in the study as ages twenty-three to thirty).¹⁵¹ Similarly, in a study of cortical myelination, researchers showed that myelin growth is prolonged “well beyond adolescence.”¹⁵²

Further, for the purpose of reducing crime, the critical question is not when maturation is reached, but: At what age is the capacity to change behavior lost? Research based on a social ecological perspective suggests that humans never quite lose the capacity to grow and change. For example, lifespan development theory, an increasingly prominent perspective both within and beyond the field of developmental psychology, is premised on the notion that humans develop and change from cradle to grave.¹⁵³ Lifespan development theory is supported by research showing that identity

146. Jeffrey Jensen Arnett, *Emerging Adulthood: A Theory of Development From the Late Teens Through the Twenties*, 55 AM. PSYCHOLOGIST 469, 476 (2000).

147. STANLEY G. HALL, *ADOLESCENCE*, xviii-xix (1904).

148. Arnett, *supra* note 146, at 470-76.

149. Jeffrey Jensen Arnett, *Reckless Behavior in Adolescence: A Developmental Perspective*, 12 DEVELOPMENTAL REV. 339, 341-42 (1992).

150. Travis Hirschi & Michael Gottfredson, *Age and the Explanation of Crime*, 89 AM. J. SOCIOLOGY 552, 557 (1983).

151. See generally Elizabeth Sowell et al., *In Vivo Evidence for Post-Adolescent Brain Maturation in Frontal and Striatal Regions*, 2 NATURE NEUROSCIENCE 859 (1999).

152. See generally Daniel J. Miller et al., *Prolonged Myelination in Human Neocortical Evolution*, 109 PROC. NAT'L ACAD. SCI. 16480 (2012).

153. See generally Paul B. Baltes et al., *Lifespan Psychology: Theory and Application to Intellectual Functioning*, 50 ANN. REV. PSYCHOL. 471 (1999).

relevant conflicts can spur psychosocial growth as individuals enter different life stages;¹⁵⁴ environmental changes can lead to adaptive responses throughout adulthood;¹⁵⁵ and training can induce changes in the adult brain.¹⁵⁶ These last results from research on neuroplasticity overturned the dogma that, except for changes caused by ageing or pathology, the anatomical structure of the adult brain is not amenable to change.

As we have seen, like adolescents, adults are vulnerable to risk and amenable to change. It stands to reason, then, that adults are also suitable candidates for treatment. This raises a puzzle: Why did early evaluations of adult rehabilitation programs so convincingly show that “nothing works?” Two methodological weaknesses of Martinson’s narrative review—the source of the “nothing works” mantra—provide part of the explanation.¹⁵⁷ First, in a narrative review of multiple studies focused on the statistical significance of each individual study, the number of participants in a study is critically important. This is because statistical power is positively related to the size of a given study: finding statistical significance in a small study, even where there is a large effect size, is more difficult than in a larger study. So in Martinson’s narrative review, interventions reported as not “working” on a small number of subjects may have proved effective on a larger scale. Second, Martinson’s review ignored the contents of the so-called black box; that is, it ignored the conditions affecting treatment efficacy. Today, various statistical techniques are used to identify such factors, providing insights about what factors are associated with effective programs.

Also, the social and political context in which the Martinson review was released contributed significantly to the perception that “nothing works.” Notably, Martinson’s review was not the first research to throw doubt on the efficacy of rehabilitation.¹⁵⁸ Still, support for the rehabilitative ideal survived these earlier reviews. However, by 1974, the year Martinson released his findings, the social and political climate had changed. Over the previous two decades, the homicide rate roughly doubled.¹⁵⁹ Polls showed

154. See generally ERIK HOMBURGER ERIKSON, *IDENTITY AND THE LIFE CYCLE* (1959).

155. See generally William J. Hoyer & John M. Rybash, *Characterizing adult cognitive development*, 1 J. ADULT DEV. 7 (1994).

156. See generally Bogdan Draganski et al., *Neuroplasticity: Changes in grey matter induced by training*, 427 NATURE 311 (2004).

157. See Martinson, *supra* note 35.

158. See generally BARBARA WOOTTON, *SOCIAL SCIENCE AND SOCIAL PATHOLOGY* (1959); Walter C. Bailey, *Correction Outcome: An Evaluation of 100 Reports*, 57 J. CRIM. L., CRIMINOLOGY & POL. SCI. 153 (1966).

159. See generally JAMES ALAN FOX & MARIANNE W. ZAWITZ, BUREAU OF JUSTICE STATISTICS, *HOMICIDE TRENDS IN THE UNITED STATES: 1998 UPDATE* (2000).

that crime ranked near the top of problems facing the nation.¹⁶⁰ And on both sides of the political divide, opposition to rehabilitation prevailed: conservatives complained that rehabilitation coddled offenders; liberals distrusted the discretion it gave to Judges and correctional officials.¹⁶¹ Cognitive scientists define confirmation bias as the tendency to seek out evidence in a way that supports one's views.¹⁶² At the time, the dominant view was that crime had become a serious problem, and that rehabilitation was not the solution. And Martinson's review provided confirmation.

Since then, researchers have made considerable progress in studying correctional rehabilitation of adult offenders. Recent results from meta-analytic studies of correctional rehabilitation unambiguously show that rehabilitation works. According to Mark Lipsey, a leader in the field of treatment evaluation research: "The global question of whether rehabilitation treatment works is thus answered affirmatively by the favorable mean effects on recidivism found by every meta-analyst who has conducted a systematic synthesis of a broad sample of the available experimental and quasi-experimental research."¹⁶³ Several such examples of robustly supported interventions with adult offenders are: Aggression Replacement Therapy (ART),¹⁶⁴ Cognitive Behavioral Therapy (CBT),¹⁶⁵ Milieu therapy,¹⁶⁶ and educational, vocational, and work programs.¹⁶⁷ Multi-Systemic Therapy (MST), which enjoys robust support with juveniles, was also recently found in preliminary research to be effective with emerging adults with serious mental health conditions and recent criminal justice involvement (MST-EA).¹⁶⁸ Because MST was designed as an intervention for adolescents, this last finding is consistent with a life course development perspective suggesting that adult offenders also can

160. Tom W. Smith, *America's Most Important Problem—A Trend Analysis, 1946-1976*, 44 PUB. OP. Q. 164, 171-72 (1980).

161. FRANCIS T. CULLEN & KAREN E. GILBERT, *REAFFIRMING REHABILITATION* 56-74 (2d ed. 2012).

162. See generally Charles G. Lord et al., *Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence*, 37 J. PERSONALITY & SOC. PSYCHOL. 2098 (1979).

163. Mark W. Lipsey & Francis T. Cullen, *The Effectiveness of Correctional Rehabilitation: A Review of Systematic Reviews*, 3 ANN. REV. L. & SOC. SCI. 297, 306 (2007).

164. Ruth M. Hatcher et al., *Aggression Replacement Training with Adult Male Offenders within Community Settings: A Reconviction Analysis*, 19 J. FORENSIC PSYCHIATRY & PSYCHOL. 517, 525-26 (2008).

165. STEVE AOS ET AL., WASH. STATE INST. FOR PUB. POLICY, *THE COMPARATIVE COSTS AND BENEFITS OF PROGRAMS TO REDUCE CRIME* 8 (2001).

166. See generally Frank S. Pearson et al., *Rehabilitative Programs in Adult Corrections: CDATE Meta-Analysis* (Paper Presented at the Annual Meeting of the American Society of Criminology, San Diego 1997).

167. David B. Wilson et al., *A Meta-Analysis of Corrections-Based Education, Vocation, and Work Programs for Adult Offenders*, 37 J. RES. CRIME & DELINQUENCY 347, 361 (2000).

168. See generally Davis et al., *supra* note 143.

change in response to multi-systemic, community-based interventions that target relevant risk factors in the lives of high risk offenders.

Recent progress has also been made in answering the question: *Which* methods work best for *which* offenders under *what* conditions? By using meta-analytic techniques, researchers have begun to identify the factors associated with effective treatment programs. For example, in a meta-analysis of cognitive-behavioral interventions with juvenile and adult offenders in correctional and community settings, Landenberger and Lipsey found that CBT reduced recidivism by 25%.¹⁶⁹ Further analysis revealed several factors associated with effective treatment: treatment of higher risk offenders, implementation fidelity, inclusion of an anger management component, and training in interpersonal problem solving. Interventions that included this optimal mixture of ingredients were found to reduce recidivism by 50% in comparison to the average control group.¹⁷⁰ In view of the findings, Landenberger and Lipsey noted, “[t]he central issue for research on CBT with offender populations at this juncture is not to determine if it has positive effects, but to determine when and why it has the most positive effects.”¹⁷¹ To this end, researchers have begun to converge on several factors. First, therapeutic programs aimed at changing behavior by improving social skills and relationships are more effective than control oriented programs that emphasize discipline, surveillance, and intensive supervision.¹⁷² Second, treatment interventions are more effective on high-risk offenders.¹⁷³ This runs counter to the view that high-risk offenders cannot be rehabilitated—to the contrary, evidence suggests that they benefit most from treatment. Finally, treatment is more effective in the community than in an institutional setting.¹⁷⁴ This last finding comports with social ecology’s emphasis on contextual factors.

The reversal in the empirical status of rehabilitation has been accompanied by equally dramatic social and political change. The United States homicide rate declined by nearly half, from 9.3 homicides per 100,000 U.S. residents in 1992 to 4.7 in 2011, the lowest level since 1963.¹⁷⁵ Starting in the 1990s, overall crime rates fell broadly for the

169. Landenberger & Lipsey, *supra* note 101, at 470.

170. *Id.*

171. *Id.* at 472.

172. Mark W. Lipsey & James C. Howell, *A Broader View of Evidence-Based Programs Reveals More Options for State Juvenile Justice Systems*, 11 CRIMINOLOGY & PUB. POL’Y 515, 517-18 (2012).

173. See generally Donald Andrews et al., *Does Correctional Treatment Work? A Clinically Relevant and Psychologically Informed Meta-Analysis*, 28 CRIMINOLOGY 369 (1990).

174. See generally *id.*

175. ERICA L. SMITH & ALEXIA COOPER, BUREAU OF JUSTICE STATISTICS, HOMICIDE IN THE US KNOWN TO LAW ENFORCEMENT, 2011 4 (2011).

following two decades.¹⁷⁶ National fear of crime ebbed, with the most recent Gallup poll showing that only 2-3% of people regard crime as the most serious problem facing the nation.¹⁷⁷ Meanwhile, the nation's incarceration problem worsened: The imprisonment rate increased five-fold from 1972 to 2010,¹⁷⁸ the number of blacks in prison tripled,¹⁷⁹ and the Innocence Project revealed slapdash justice being dispensed by criminal courts.¹⁸⁰

What was the cause of the dramatic increase in incarceration? According to a National Research Council committee, which was established to explore the causes and consequences of high rates of incarceration in the United States, one of the "main impulses behind the dramatic rise in incarceration was—the desire for retribution."¹⁸¹ However, more recently the public's desire for payback is beginning to be counterbalanced, if not yet outweighed, by concerns for the high costs of incarceration. As a result, the political divide is narrowing once again on the issue of crime: President Obama has worked with Republicans and Democrats to pass legislation aimed at cutting incarceration rates,¹⁸² and conservative groups like Koch Industries and Tea Party-oriented Freedom Works, have partnered with liberal groups like the American Civil Liberties Union to reduce prison populations, overhaul sentencing, and reduce recidivism.¹⁸³ Overall, the very recent scientific advances coupled with a social, economic, and political climate that appears more sympathetic to criminal justice reform is beginning to lay the foundation for the rebirth of rehabilitation.

V. POURING NEW WINE INTO NEW BOTTLES FOR THE 21ST CENTURY

As noted above, we are at the early stages of the potential rebirth of rehabilitation in the criminal justice system of the United States. The old mantra, "nothing works," has been laid to rest by systematic research on the causes and consequences of human behavior across social, psychological, and biological levels of analysis. Criminal behavior is human behavior, and the risk factors that have been shown to drive a person toward crime also

176. TRAVIS ET AL., *supra* note 7, at 46.

177. Lydia Saad, *Cluster of Concerns Vie for Top U.S. Problem in 2014*, GALLUP (Jan. 2, 2015), http://www.gallup.com/poll/180398/cluster-concerns-vie-top-problem2014.aspx?utm_source=position4&utm_medium=related&utm_campaign=tiles.

178. TRAVIS ET AL., *supra* note 7 at 42.

179. MICHAEL TONRY, *MALIGN NEGLECT: RACE, CRIME, AND PUNISHMENT IN AMERICA* 4 (1996).

180. *See generally* Barry SCHECK ET AL., *ACTUAL INNOCENCE: FIVE DAYS TO EXECUTION, AND OTHER DISPATCHES FROM THE WRONGFULLY CONVICTED* (2001).

181. TRAVIS ET AL., *supra* note 7, at 24.

182. *Obama, Lawmakers Push for Criminal Justice Reform*, *supra* note 3.

183. Hulse, *supra* note 3.

are now potent levers for change toward crime prevention and recidivism reduction. The new mantra should be: “Intervention does work for both juveniles and adults.” In addition to shifting our research attention toward identifying what types of interventions work best for what types of offenders in what types of settings, we need to begin to bridge the divide between juvenile and adult criminal justice.

A. Integrating Rehabilitation Across Juvenile and Adult Criminal Justice Systems

The full flavor of the new vintage requires evidence-based multisystemic interventions aimed at forward-looking risk and resource management tailored to the needs of individual offenders.¹⁸⁴ Initial progress towards rebirth has been most pronounced among juvenile offenders, but increasing evidence suggests that similar interventions, adapted to the changing needs and life circumstances of adult offenders, can reduce recidivism and overreliance on harsh and lengthy sentences across the entire criminal justice system.¹⁸⁵ While collaborative efforts between behavioral scientists and legal advocates have resulted in more humane treatment of juveniles once facing the death penalty or life sentences, such progress has come at some potential expense to juveniles facing less severe sentences and adult offenders across the board.¹⁸⁶ We believe it is incumbent upon the behavioral science community at this point to step up and help the public and the legal community understand that change is not only possible for all human beings across the entire life span, but is inevitable. Whether that change is toward law abiding or criminal behavior will be influenced by a complex interplay of dynamic social, psychological, and biological factors that can be guided and shaped by public policy and legal reform.

As we have seen, one of the driving forces behind the due process revolution in juvenile justice and the rebirth of retribution in American criminal law was a social climate of public mistrust of government authority. Even among the staunchest civil libertarians and progressive legal scholars and advocates, retribution was seen as a necessary limiting principle on the state’s authority to infringe on constitutionally-based liberty interests. This concern remains at the center of the current legal embrace of traditional culpability doctrines anchored in retributive principles.¹⁸⁷

184. See Generally Mark R. Fondacaro, *The Injustice of Retribution: Toward a Multi-Systemic Risk Management Model of Juvenile Justice*, 20 J.L. & POL’Y 145 (2011); Christopher Slobogin, *The Civilization of the Criminal Law*, 58 VAND. L. REV. 121 (2005).

185. Landenberger & Lipsey, *supra* note 101.

186. See generally Fondacaro, *supra* note 99.

187. Elizabeth Scott & Laurence Steinberg, *Social Welfare and Fairness in Juvenile Crime Regulation*, 71 LA. L. REV. 35, 81-96 (2010).

Unfortunately, doubling down on retribution as a limiting principle has had the paradoxical effect of providing moral cover and justification for increasingly punitive and lengthy sentences for juvenile and adult offenders. If the rebirth of rehabilitation and a more forward-looking consequentialist criminal justice system is to flourish and mature over the course of the 21st Century, a new set of consequentialist limiting principles must be established.

B. New Consequentialist Limiting Principles

The establishment of any limiting principles should be guided by policy goals. So, for example, with retribution, the goal is to have the offender pay back in personal suffering for the harm they caused to the victim and society. The primary limiting principle is therefore proportionality—the punishment should fit the crime, no more and no less than what is “deserved.” Shifting toward a more forward-looking consequentialist justification for punishment, the primary policy goal is crime prevention and recidivism reduction. With this goal in mind, the following limiting principles are proposed to strike the balance between effective rehabilitative intervention and protection of liberty interests:

- Adjudication should be based on proof beyond a reasonable doubt that a defendant engaged in a non-accidental behavior that violates the *actus reus* requirement of the criminal law.
- Disposition must be based on a comprehensive biopsychosocial assessment of the offender.
- The goal of the disposition should be forward-looking recidivism reduction and prevention of future crime.
- The intervention should be implemented in the *least restrictive setting* necessary to reasonably ensure public safety.
- There should be a rebuttable presumption that the criminal record of all first-time offenders will be expunged or made publicly inaccessible upon the completion of their intervention requirements. The burden of proof and persuasion to rebut the presumption is on the prosecution.

- However, the criminal record should be retained for purposes of risk assessment and management should the offender be adjudicated for a second—and any additional—offense.

At first blush, this list is likely to set off alarm bells for retributivists and civil libertarians alike. After all, holding someone legally accountable for what amounts to negligent criminal behavior paints with a very broad brush. However, this broad threshold requirement merely gives the state authority to investigate and assess the circumstances surrounding the individual's misconduct. The goal is not to blame or assign culpability, but to determine why the person did what they did and decide what if anything should be done to prevent such behavior in the future. In many cases, the decision may be that nothing needs to be done, especially for low risk juveniles whose criminal behavior reflects normative maturational processes at the psychological and neurobiological levels. In all cases, it will be presumed that first-time offenders will not have a stigmatizing criminal record that might otherwise be a contributing factor to their risk for engaging in criminal behavior in the future. The traditional ritual of retrospective mind reading to determine *mens rea*, with all of its inevitable biases and errors, would be eliminated—although assessments of mental states may still be relevant to understanding why a person did what they did and what type of intervention would be best suited to prevent recidivism. However, such judgments would be based on systematic assessments and would be done in the context of a comprehensive biopsychosocial assessment. We would never again have life and death decisions turn on whether a jury determined that a person did or did not “turn it over in his head” before committing a homicide.

C. Evidence Based Implementation, Evaluation, and Reform

If the new wine of the 21st Century legal system is forward-looking evidence-based mutisystemic interventions, then the new bottles are performance-based, solution-focused legal procedures aimed at ensuring fair, accurate, and efficient legal decision-making and the implementation of the substantive goal of individual crime prevention.¹⁸⁸ This means the potential migration away from traditional backward-looking adversary procedures toward more forward-looking investigative procedures based on

188. See generally SLOBOGIN & FONDACARO, *supra* note 2; Fondacaro, *supra* note 184; Slobogin, *supra* note 184.

ongoing empirical research.¹⁸⁹ The reason we refer to “potential” migration is to emphasize that we are not suggesting any specific a priori fixed set of legal procedures, substantive rules, or intervention programs. Rather, we are suggesting the establishment of a forward-looking framework that defines a problem (i.e., criminal behavior), assesses its multifaceted causes and consequences, generates and evaluates alternative solutions, decides on a solution-focused intervention strategy, implements that strategy, evaluates the strategy against policy goals, and revises the strategy as needed based on feedback about the weaknesses and strengths and successes and failures of the strategy.

The key engine that drives this system forward and in a positive direction is evaluation; that is, evaluation aimed at determining whether the procedural goals of fairness, accuracy and efficiency and the substantive goal of crime prevention are being met. Such an evaluation always depends on a comparison to a baseline condition, with the status quo as the prototypic baseline condition. So, if our goal is to decrease the likelihood that a juvenile who commits an assault will do so in the future, we can compare the recidivism rate of juveniles who are transferred to the adult system and receive adult time for the adult crime to juveniles who receive an individually tailored intervention aimed at identifying and addressing dynamic risk factors associated with their aggressive behavior. Likewise, we can compare the likelihood of recidivism among unemployed adults who are convicted and sentenced for drug offenses to the recidivism rates for comparable offenders who are subject to the more forward-looking preventive regime outlined above. Program and policy reforms are then guided by feedback based on the empirical evaluation data. This evidence-based organizational framework can be used to monitor effectiveness at the individual, group, and policy levels. Moreover, benchmarks for success can go beyond recidivism reduction to cost savings, stigma reduction, and racial disparities inside and outside the criminal justice system—just about any outcome deemed important as a matter of public policy in a democratic society.

Overall, if we are to continue to make progress toward reforming the juvenile and adult criminal justice systems in the United States, we will need to begin to spill the vinegar of retributive punishment and replace the rotten barrels of mass incarceration. With the ongoing collaboration of behavioral scientists, legal scholars, and policy makers, we have the potential to make new wine in properly seasoned barrels and to pour that

189. See generally Mark R. Fondacaro et al., *Reconceptualizing Due Process in Juvenile Justice: Contributions from Law and Social Science* 57 HASTINGS L.J. 955 (2006); Mark R. Fondacaro, *Toward an Ecological Jurisprudence Rooted in Concepts of Justice and Empirical Research* 69 UMKC L. REV. 179 (2000).

new wine into new lead-free bottles to attain a more just criminal justice system for the 21st Century.