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Desistance From Crime

Implications for Research, Policy, and Practice

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Foreword

Amy L. Solomon

Acting Assistant Attorney General, Office of Justice Programs

The recidivism frame dominates discussion in the criminal justice literature, among practitioners, and even in the context of local news. It's true — one way to slice the data shows that the majority of people exiting prison “fail,” and thus the “system doesn't work” and “people can't change.” This failure frame is a trap for many reasons, worthy of its own collection of papers (many of which have already been written). What it doesn't tell you is that in fact, two-thirds of all people who are released from prison will actually never return.¹ Or that, as the “Redemption” studies teach us, those who stay out of the justice system for just a few years are no more likely to return to criminal activity than a similar person in the general population.² Moreover, the recidivism literature does little to show us the pathways to success — or the process of desistance.

What determines who desists from a criminal trajectory — and what can society do to bend the curve and encourage a better path?

I think I was a student of the desistance concept before I knew the term or had read the underlying research. Over my 30 years in the field, I have met scores of people who have successfully exited the justice system and have found ways to

¹ Rhodes, W., Gaes, G., Luallen, J., Kling, R., Rich, T., & Shively, M. (2014). Following incarceration, most released offenders never return to prison. *Crime & Delinquency*, 62(8), 1003-1025.

² Blumstein, A., & Nakamura, K. (2009). Redemption in the presence of widespread criminal background checks. *Criminology*, 47(2), 327-359; Blumstein, A., & Nakamura, K. (2012). Extension of current estimates of redemption times: robustness testing, out-of-state arrests, and racial differences. Final report to the National Institute of Justice, award number 2009-IJ-CX-0008, NCJ 240100.

improve themselves and strengthen their communities. I have seen desistance in action and it has shaped my views about the possibilities inherent in justice reform.

As a VISTA Volunteer just out of college, I performed community service alongside people coming out of prison. I saw their contributions to their communities and witnessed their productivity, pride, and sense of accomplishment as they spruced up the gardens at the local library, fixed up old camp structures designed for kids in need, and counseled at-risk youth about the perils of a life of crime.

One of my first research projects involved a focus group of formerly incarcerated individuals who had successfully reintegrated into the community. The probing questions were about what elements helped contribute to their success and stability. This was many years ago, but I was surprised at the time about how thin the research literature was in covering contributions to success versus risk factors leading to failure.

A more recent experience was here at the Department of Justice during the Obama Administration, when I worked with Daryl Atkinson, the country's first Second Chance fellow. His brilliance and influence on policy and practice helped pave the way to more enlightened and effective treatment of millions of people in this country with criminal records. Daryl's path from prison to college to law school to a wildly influential career as a lawyer, advocate, and scholar is an example for us all.

So many people involved in the criminal legal system have the potential to desist from crime and achieve great possibilities in their futures. That is why I am so pleased to introduce this volume focused on desistance. It includes white papers written by some of the best minds in the field as they explore how to conceptualize and measure desistance and offer innovative ways of using desistance-focused approaches to help individuals cease engagement in crime and chart paths to a different future.

It is my hope that this volume will open up a new and robust line of inquiry around how to support people involved in the criminal legal system and how to measure success. These papers, and the discussions they spark, are poised to help move the field forward in research, policy, and practice, and ultimately pave the way for more safe, just, and equitable communities.

Introduction

Jennifer Scherer, Ph.D.
Acting Director, National Institute of Justice

The mission of the National Institute of Justice (NIJ) is to inform the decision-making of the criminal justice community to help reduce crime and advance justice. To accomplish this mission, we engage stakeholders to understand the key issues and challenges facing the field, guide research to address these challenges, and disseminate the information to those who can benefit from its application.

NIJ has heard the call for the need to better understand, implement, and evaluate desistance-focused approaches in the criminal justice system. I am excited to present this collection of work that aims to bridge the gap between researchers and practitioners; provide a better understanding of how desistance is conceptualized, measured, and applied; and help the field develop innovative ways to increase the use of desistance-focused approaches. In doing so, we will be better positioned to meet the needs of stakeholders across the criminal justice system, improve individual outcomes, and effectively reduce crime and promote public safety for communities across the United States.

In recent years, criminal justice issues have received considerable attention from policymakers, researchers, clinicians, and the general public. I have seen increased focus on improving criminal justice outcomes, addressing the needs of individuals frequently involved with the justice system, and assessing the current practices, assumptions, and measures that often accompany criminal justice research. It has been my privilege to help NIJ strengthen its role, capacity, and commitment to making progress in these areas.

A key step in advancing our knowledge in these areas is to examine how we think about and measure the process of individuals ceasing engagement in criminal activities, referred to as “desistance.” How we conceptualize this process can affect how we evaluate the effectiveness of laws and policies intended to provide or increase public safety. How practitioners view this process — and their role in supporting it — can influence how they engage with clients across all stages of system involvement. Furthermore, programs and initiatives are often judged on their ability to reduce reoffending and improve other outcomes. Having a clear understanding of what we consider desistance to be, incorporating policies and interventions that support desistance, and identifying best practices to evaluate these efforts is important work.

Recidivism — often defined as criminal acts or interactions with law enforcement that result in re-arrest, reconviction, or return to prison — has been the primary outcome for criminal justice research for decades, and it continues to be. The recidivism data available from federal, state, and local systems over time provide valuable information. For example, the data can help us gauge the performance of correctional programs and whether policies are successfully providing public safety to their communities. Practitioners can also use recidivism data to assess the risk of reoffending for the populations they serve. Despite the value of this information, we must expand beyond recidivism in how we understand and examine individual behavior.

This volume takes important steps in describing how a desistance framework can move the field forward across key decision points in the criminal justice system (e.g., at time of arrest, charging, pretrial release, case processing, disposition and sentencing, and reentry). Although research has focused on desistance for some time, the term and its accompanying knowledge base are far less known than recidivism. Recidivism is a discrete measure — that is, yes or no — and has a limit to the amount of information it can provide. Capturing where an individual is in the desistance process provides more nuanced information, better supports assessment of individual progress toward less criminal behavior, and facilitates a strengths-based perspective focused on building on individual assets to promote positive change. Incorporating desistance principles into the criminal justice field has great potential to improve outcomes, elevate practices, better support those with system involvement, and more effectively use resources to provide safety to the community.

NIJ’s efforts to advance desistance research are extensive and longstanding, including studies funded under the Desistance From Crime Over the Life Course program (2012) and the Research Into Desistance From Crime program (2019). I am thrilled to introduce this collection of chapters dedicated to further expanding our knowledge and ability to apply desistance principles to our field. The authors in this volume engaged in an extensive peer review process. They presented the content of their respective chapters during multiple webinars and received feedback from NIJ staff and other authors. The result is a collection

of work that has been shaped by various disciplines, practitioners, and highly respected researchers.

In the chapters that follow, these experts discuss how to better incorporate a desistance-focused approach in criminal justice practice, policy, and research and the potential benefits and challenges of doing so. They examine how we define and measure desistance and outline strategies and approaches that facilitate an intentional application of desistance-centered principles into practice. I believe the application of these approaches has the potential to profoundly impact the criminal justice system for the better. For this to occur, multiple stakeholders — practitioners, policymakers, and researchers — must openly communicate with one another, reassess current practices, and engage in jointly sustained efforts over an extended period of time. Challenges and concerns will arise as we bridge the gap between academic knowledge and real-world application; however, these barriers have been successfully crossed in the past and can be again. This volume is a step in achieving this goal.

In the first chapter, Dr. Michael Rocque looks at the origins of the term desistance and reviews how it has been defined and conceptualized through the years. He suggests defining desistance as “the process by which criminality, or the individual risk for antisocial conduct, declines over the life-course, generally after adolescence.” This definition has direct relevance for practitioners, policymakers, and researchers because it establishes that the process of desistance may be underway despite the occurrence of criminal behavior. Understanding this influences how we view an individual’s progress toward moving away from crime and how we evaluate programs and policies meant to support desistance. Dr. Rocque also examines how researchers have measured desistance and discusses the implications of using different modeling choices, population samples, data types, and follow-up time periods. He argues that to truly capture desistance, the focus should be on criminality rather than criminal behavior but acknowledges both are needed in evaluation and policy research.

In the second chapter, Dr. Danielle Boisvert examines desistance from crime from a biosocial perspective. She discusses how practitioners and policymakers can use research on brain development, neuropsychological functioning, and stress system response to improve risk assessments, enhance treatment planning, and support desistance in correctional settings. Dr. Boisvert also highlights the impact that correctional environments have on neuropsychological functioning and stress response, the need to incorporate strengths-based perspectives, and the importance of research-practitioner partnerships when studying program effectiveness. She identifies gaps in the current knowledge base and recommends increased interdisciplinary research in this area.

In the third chapter, Dr. Christopher Wildeman applies Dr. Rocque’s definition of desistance as he examines the effects of incarceration on the desistance process for individuals who chronically engage in criminal activity. He argues

that incarceration and longer sentences do not reduce criminal activity and potentially have criminogenic effects. He also argues that conditions of confinement have negative effects on several life-course outcomes, likely resulting in a disruption or delay of the desistance process. Dr. Wildeman identifies the need for a wide array of programming for individuals who chronically engage in criminal activity, particularly for those who receive noncustodial sanctions to prevent reincarceration. He strongly urges policymakers to consider less punitive sanctions and suggests that doing so will help save resources and facilitate the desistance process. Finally, Dr. Wildeman identifies critical gaps in our current knowledge base, most notably how current research does not focus on the effects of incarceration for individuals who chronically offend. He advises the research community to extend several Bureau of Justice Statistics studies, examine the relationships between conditions of confinement and the desistance process, and extend both general population and high-risk longitudinal studies of youth to examine the desistance process.

The next chapter of the volume, written by Dr. Kristofer “Bret” Bucklen, takes a practitioner’s point of view on applying desistance concepts to correctional programming and policy. Dr. Bucklen argues that to date, desistance-focused research has largely been theoretical and focused on describing the process of individuals’ behavioral changes. He briefly reviews the proposed mechanisms of desistance and their theoretical underpinnings, providing a foundation for understanding the challenges of applying desistance to “real world” circumstances. Dr. Bucklen raises important questions for practitioners, policymakers, and researchers, such as what behaviors count as desistance, how we should measure criminal behavior, and what time span is necessary to capture desistance. He proposes three measures — deceleration, de-escalation, and reaching a ceiling — to help stakeholders capture desistance and evaluate programs’ impact on desistance. Dr. Bucklen also reviews interventions that could be considered desistance-focused and discusses common barriers practitioners and policymakers face in applying desistance-related concepts.

In the fifth chapter, Dr. Stephen Farrall offers an international perspective, focusing on lessons learned from other countries and how they may be applied to the U.S. system. Dr. Farrall reviews the main correlates of desistance, identifies system-level philosophies and approaches that hinder the desistance process, and offers suggestions on how to adapt them to support desistance. He discusses how to effectively increase the engagement of those attempting to desist from crime, how to best support them through this process, and the need for more focused interventions. Practitioners and policymakers can draw on Dr. Farrall’s review of interventions considered most likely to support and help develop desistance as they strive to apply desistance-focused interventions to their areas of practice.

The volume concludes with Dr. Lila Kazemian’s discussion of pathways to desistance for juveniles and adults. Dr. Kazemian calls for a paradigm shift in criminal justice policy and practice, moving away from an exclusive focus

on recidivism toward a model that takes into account positive outcomes that may result in reduced involvement in crime. She suggests that interventions and assessments that seek to monitor and support desistance efforts would benefit from tracking individual and social outcomes in addition to behavioral outcomes. The chapter highlights the importance for criminal justice policy and interventions of recognizing that desistance from crime often occurs gradually and that setbacks are a normal part of the process. Dr. Kazemian recommends a balance between failure and success outcomes when assessing risks of reoffending and suggests including incentives for success. She provides pertinent policy recommendations on accounting for the reduced culpability of young adults, the use of confinement as a last resort, and strategies to support the desistance process during incarceration. She adopts a systemwide view to discuss how practices and policies can promote and facilitate desistance from crime at various stages of the criminal justice process — at time of arrest, court involvement, incarceration, and community supervision/reintegration. Dr. Kazemian concludes by emphasizing the need for robust partnerships across criminal justice and community agencies to better support individuals in their efforts to desist from crime.

This volume has several key takeaways for practice, policy, and research that I would like to highlight.

Practice

Desistance is a process, not an event. Recognizing this will inform the types of interventions the criminal justice system delivers and the outcomes we expect to see from them. Desistance can be occurring even if criminal behavior is present. Beyond assessing criminal behavior, it is important to examine criminality (i.e., the propensity to offend) and use this information to assess where an individual is in the desistance process. Additionally, when evaluating the risk of reoffending, it is worth considering both failure and success measures. Practitioners can also incorporate practices informed by biosocial research, which will result in a better understanding of where the individual is coming from and how to build on their strengths. I also want to acknowledge that although many interventions show promise in promoting desistance, we need additional rigorous evaluations of these interventions and approaches. Continuing to build partnerships between practitioners and researchers is vital to the success of these evaluations.

Policy

In many ways, policy is the gatekeeper that will determine the extent to which desistance principles are applied across the criminal justice system. Multiple authors in this volume suggest that incarceration likely disrupts the

desistance process. Dr. Kazemian and Dr. Wildeman argue that policymakers should consider less punitive approaches, use shorter sentences, and employ incarceration as a last resort whenever possible. These suggestions have public safety implications that will require policymakers to be informed about the desistance process and under what circumstances it is most likely to occur. Policy decisions at the state and local levels that incorporate the desistance knowledge base will be vital to improving our current practices while also maintaining public safety. When possible, policymakers should use measures of criminality, criminal behavior, and noncriminal behavior to inform their decisions.

Research

The measures and models used by researchers should reflect the assertion that desistance is a process. Although the theoretical knowledge base provides rich understanding of the key components of desistance, we need more rigorous evaluation on desistance-related approaches, particularly in the United States. Researchers should keep in mind that system involvement is only a proxy for desistance and that additional measures of criminality may be needed to truly evaluate desistance. This volume presents several key gaps, including the application of biosocial interventions, the impact of conditions of confinement on the desistance process, and the lack of focus on individuals who chronically offend. We must continue to invest in data collection efforts to support our understanding of how desistance occurs and under what circumstances, and how modern societal influences may affect this process.

My sincere appreciation goes to the contributing authors for their dedication, expertise, and scholarship. This volume would also not have been possible without the guidance and hard work of Marie Garcia, Benjamin Adams, and D. Michael Applegarth. Thank you for your commitment to this important work.

NIJ remains committed to supporting rigorous and multidisciplinary research that will improve public safety and meet the needs of those involved in the criminal justice system. It is my hope that practitioners, policymakers, and researchers alike will find these chapters informative and beneficial in moving their work forward. I strongly encourage all who read this volume to consider how you can incorporate research on desistance into your areas of influence and practice. Desistance from crime is a developmental process. Incorporating this knowledge base into risk assessments, treatment plans, and criminal justice policy has the potential to improve public safety and increase early exit points for those with system involvement. Additionally, incorporating desistance principles into our practices may help the field embrace a more strengths-based perspective. We look forward to engaging with you in intentional and thoughtful efforts to advance scientific inquiry into the process of desistance and its application to policy and practice.

Chapter 1

But What Does It Mean? Defining, Measuring, and Analyzing Desistance From Crime in Criminal Justice

Michael Rocque, Ph.D.

Introduction

In a review published in 2001, life-course scholars John Laub and Robert Sampson (2001, p. 8) noted that a journal editor had told them desistance “was not a word” in response to their work on the subject. It is hard to imagine that being the case today, as the term has become fully entrenched in academic literature and is even making its way into policy and practice. Yet inconsistencies in the way desistance is defined and measured remain. This is problematic for a variety of reasons, including the inability to meaningfully merge research findings across studies.

The continuing difficulty in defining and measuring desistance is not surprising. Scholars have long pointed out that desistance is an “unusual” concept (Maruna, 2001, p. 17) because it is meant to capture the lack of activity rather than the presence of it. Unfortunately, early research treated desistance as precisely that: a lack of criminal behavior. This strategy, which still exists in policy research, is sensitive to the period of time selected to monitor behavior and also assumes that

desistance is abrupt. More recent work has indicated that desistance is a process that may not be best measured in a binary fashion.

If desistance is more complex than simply a crime-free gap, it becomes much trickier to define and measure. In that same article referenced earlier, Laub and Sampson (2001, p. 4) asked whether desistance was like pornography: We know it when we see it (in reference to a 1964 U.S. Supreme Court case in which Justice Potter Stewart claimed to know pornography when he saw it). Pornography is difficult to define. What makes something pornographic as opposed to artistic? Similarly, desistance is a term that is increasingly used in the literature but in different ways, which can lead to significant variation in research conclusions and implications. It is also difficult to define. If a person released from prison does not commit any criminal acts in five years, has he or she desisted?

It is important, therefore, to understand what desistance is and how researchers can measure it in the most effective manner. It is essential that baseline definitions exist so that, at the very least, researchers are attempting to study the same phenomenon when they examine concepts such as desistance. If not, conclusions and recommendations for policy and practice become muddled and useless. Fortunately, scholarship on desistance from crime has advanced significantly in the past few years, allowing more nuanced and sophisticated assessments of the process to unfold.

Overview of the Paper

The overall goal of this white paper is to provide grounded recommendations for policy and practice. To do that, the paper reviews definitions of desistance used in the literature and then offers an updated, theoretically grounded definition as a foundation for future work.

First, the paper offers brief comments on the history of desistance research, drawing on age and crime literature. Next, it discusses the ways in which existing studies measure desistance in relation to the offered definition of desistance. Which ways of measuring desistance get closest to the phenomenon of interest? Which are most likely to advance our understanding of why people exit a criminal life and how we can facilitate that process? Finally, the paper provides detailed recommendations for researchers and practitioners who are seeking to examine and promote desistance from crime.

In the end, the paper offers a close examination of the phenomenon of desistance. What does it mean? What is its essence? The paper argues that desistance is “the process by which criminality, or the individual risk for antisocial conduct, declines over the life-course, generally after adolescence.” How can researchers ensure they are actually capturing that essence in their work? And what is the

best approach to measure desistance effectively and feasibly, in a way that allows practitioners to gauge the impact of programs and policies? These guiding questions provide a framework for the paper.

History of Desistance Scholarship

Scholarship that examines crime over the life of an individual, called life-course criminology, is based on the work of Glenn Elder (1994). Elder argued that four themes distinguish life-course research:

1. Historical time and place: The way in which lives unfold is dependent on where and when people lived.
2. Timing: The impact of events for one's life-course depends on when it happened in his or her life.
3. Linked lives: People are interconnected.
4. Agency: Choice matters.

Theme 1, history, is relevant to any discussion of how to conceptualize desistance. The process through which individuals decelerate or cease offending may have looked much different in years past.

Desistance from crime is a relatively new concept, emerging in earnest in the last 30 years. In a review of desistance research, Rocque (2017) found that prior to the 1970s, the term desistance was virtually never used to describe the cessation of offending; instead, it described the abandonment of a particular act in progress. It was not until Wolfgang and colleagues' (1972) research on a Philadelphia birth cohort that desistance appears to have been used in the way it is today. In the follow-up to the birth cohort study, one chapter (Rand, 1987) was devoted to understanding the predictors of desistance from crime.

Although the term desistance is relatively new, the notion that crime is a young person's game is not. Research from the 19th century, though limited, recognized that when plotted against age, crimes declined. In perhaps the earliest of such observations, Belgian astronomer Adolphe Quetelet (1984), in his *Research on the Propensity for Crime at Different Ages*, originally published in 1831, found a sharp decline in crimes after ages 25-30 for both property and personal offenses. Interestingly, however, Quetelet made a point to argue that age does not directly cause a decrease in crime but rather a decrease in "criminality," or the propensity to engage in antisocial conduct. This point has been overlooked in much of the desistance literature, which uses behavior as an indicator of desistance.

Although other scholars in the 19th and early 20th centuries noted the relationship between age and crime — known as the age-crime curve (see Goring, 1913; Lombroso, 1911; Parmalee, 1918) — it was the work of husband and wife research team Eleanor and Sheldon Glueck at Harvard University that illuminated how criminal behavior changes over time. Early scholars like Quetelet used aggregate, cross-sectional data to make claims about the relationship between age and crime. In other words, the data they examined were collected at one point in time and represented, for example, the number of people arrested at various ages. This sort of analysis is informative, but it does not examine how crime changes for the same person as he or she gets older.

The Gluecks conducted some of the first longitudinal panel studies in criminology. Over a span of several decades, they led four projects that followed different samples of individuals involved in the justice system. As Rocque (2017, p. 35) wrote, “The Gluecks thus showed conclusively, through these innovative longitudinal studies, that behavior, even of serious offenders, improves over time. They did not, however, use the term ‘desistance.’ Instead, they referred to this phenomenon as ‘maturation,’ something that was related to, but not determined by, age.” Although not defined precisely, maturation referred to a process that led to reformation of behavior and, ultimately, social integration. Interestingly, the Gluecks believed that a criminal career was pre-fixed and lasted a similar length, so those who started later would end later. This implies that a research design that examines crime at two points in time — provided the length of time was long enough — would be able to identify individuals who are desisting (see, for example, Glueck & Glueck, 1940). For these studies, it would be necessary to gather information on the onset of crime.

Other 20th century criminological work noted the relationship between age and crime, but it was not a focal point until the 1980s, when career criminal and criminal career research became embroiled in a debate among criminal propensity theorists (Posick & Rocque, 2018). However, David Matza’s (1964) *Delinquency and Drift* presented a relevant and novel image of juvenile delinquency. Matza argued that existing criminological theories painted a picture of a person driven to deviance by social or internal forces. These forces build up so much that, logically, individuals exposed to them should continue committing crimes well past adulthood — but they do not. To Matza, the problem is that the average youths involved in the juvenile justice system are not defined by their delinquency. They are not committed to it. Rather, sometimes they engage in it, and sometimes they do not. They drift in and out of delinquency, and when they reach maturation, it is rather easy to walk away from the criminal lifestyle. This noteworthy argument implies that, for the most part, intensive intervention or treatment is not needed to foster desistance from crime because it will occur naturally.

Definitions of Desistance in Early Scholarship

Because desistance was not a focal point of research prior to the late 20th century, it was not well defined in early scholarship, if it was defined at all. For example, Quetelet ([1831] 1984) argued that age decreased the propensity to commit crimes, but this was based on the observation that fewer older individuals were officially involved in crime over the course of a year. As will be discussed later, it is impossible to know why cross-sectional data show that there are fewer individuals in the criminal ranks.

Another early scholar, Maurice Parmelee (1918), used prison statistics from 1910 to argue that criminality declines after age 45. However, he recognized that using prison admissions “probably exaggerates adult criminality in proportion to juvenile criminality” (p. 211). Using conviction data for males and females, Parmelee argued that criminality decreases early in adulthood. Like Quetelet, Parmelee used cross-sectional snapshots and attributed a decline in the proportion of individuals in the justice system at advanced ages to a decrease in propensity to commit crime. Both Quetelet and Parmelee did not formally define desistance; rather, it was inferred from distributions of crime by age.

The Gluecks’ longitudinal studies were a departure from most research up to the early 20th century. They followed samples of youth involved in the juvenile justice system into adulthood, generally after the individuals had served time in a correctional institution. For example, in *500 Criminal Careers* (Glueck & Glueck, 1930), they examined males in the sample five years after release. Their primary analyses focused on behavior, reporting the percentage who recidivated or committed new crimes. They found 80% of the men reoffended in the first five years after release.

In *Later Criminal Careers* (Glueck & Glueck, [1937] 1966), the Gluecks followed the same males for another five years, for a total of 10 years of post-release data. In this follow-up, they did not simply examine the percentage who had reoffended (this may be called a “binary” measure of recidivism or desistance). They also recorded the men’s “progression or retrogression” ([1937] 1966, p. 9). They classified the sample as ([1937] 1966, p. 10-11):

- Successes: No crimes and no dishonorable discharges.
- Partial failures: Conviction for two minor offenses or arrest for three minor offenses (more for less serious offenses).
- Total failures: Arrests for three or more serious offenses with no convictions, arrests for three or more minor offenses with no convictions, convictions for one or more serious offenses, five or more convictions for less serious offenses, dishonorable discharge from the Army or Navy, identified serious criminal behavior, or a trend of repeated minor crimes.

In the third follow-up (Glueck & Glueck, [1943] 1976), the Gluecks classified the sample into persons committing serious offenses, minor offenses, and no offenses by the end of 15 years post-release. Thus, their examination of desistance — or maturation — included the proportion of those involved in crime, the number of crimes, and the seriousness of offending over time.

Finally, in the follow-up to their well-known *Unraveling Juvenile Delinquency* (Glueck & Glueck, 1950) — a study that followed 500 boys involved in the justice system matched to 500 boys not involved in the justice system — the Gluecks (1968) categorized the sample into those who had been arrested before age 17, between ages 17 and 25, and between ages 25 and 31. They paid attention to the timing of arrests, such as when offending began or ceased. For example, they found that of the 442 youth who had not been involved in the justice system at baseline, 62 had been convicted of crimes after age 17. In addition, of the 438 who had been involved in the justice system followed to age 31, 19.2% had no arrests between ages 17 and 25, and 39.3% had none between ages 25 and 31. The study also examined the frequency and severity of criminal behavior for the sample. These classifications recognized the complexity of pathways through a criminal career, but they may be a bit overwhelming for practical use. Additionally, they are essentially categorical measurement strategies, which may not be ideal for studying desistance as a process.

Like the Gluecks, Matza used the term “maturational reform,” which means that juveniles committed delinquency but they did not do so in adulthood. Using available statistics, he suggested that “[a]nywhere from 60-80 per cent of delinquents do not apparently become adult violators” (Matza, 1964, p. 22). Thus, his definition of desistance was binary, referring to the cessation or termination of offending.

Finally, two pieces of work sparked the development of life-course criminology and the study of desistance from crime. Hirschi and Gottfredson’s (1983) essay on age and crime brought the criminological focus squarely on how crime changes over the course of a person’s life. They argued that across time and place, crime decreases after a late adolescent peak. Their empirical evidence was a series of line graphs plotting various indicators of criminal behavior on the y-axis against age on the x-axis. Each graph was cross-sectional, or a snapshot in time. Hirschi and Gottfredson argued that because this pattern was consistent across time and place, desistance is a universal phenomenon and longitudinal data are not necessary to further examine the process (see also Gottfredson & Hirschi, 1987).

Criminal career researchers put forth an opposing view, arguing that longitudinal data were essential to best understand how crime develops and changes (or does not change) over the life-course. These scholars (Blumstein et al., 1986) also made the case that criminologists should closely examine different facets

of a criminal career, such as onset, prevalence, persistence, and desistance. In their *Criminal Careers and "Career Criminals"* report to the National Academy of Sciences, Blumstein and colleagues defined desistance in various ways, but typically regarded it as a lack of criminal behavior following some evidence of such previous behavior. Thus, like past scholars, they thought of desistance in a categorical manner, referring to the cessation or "termination" of offending (p. 405). However, they did note that to properly identify desistance, time to follow up was an important consideration, as an absence of offending could be random and simply "false desistance" (p. 91). One criminal career scholar, David Farrington (1986), also noted that aggregate crime trends may be misleading; they may suggest that persons committing crimes decelerate offending as they age, when, in fact, those actively committing crimes may continue at the same rate.

In sum, desistance from crime has been recognized for nearly 200 years. However, because desistance was not often a focus of investigations, early scholarship lacked attention to definitions and measurement. The literature on desistance developed in earnest beginning at the end of the 1980s. That work includes empirical examinations of desistance using a variety of measurement strategies. This paper turns to that work in the next section.

Definitions of Desistance From Crime

In the context of research, two primary types of definitions are used to make sense of subjects like desistance. First, conceptual definitions provide "theoretical meaning" (Burns & Groves, 2011, p. 178) to phenomena. Conceptual definitions seek to illuminate what is meant by a concept. With respect to desistance, it is the answer to the question posed in the title of this paper: But what does it mean? Interestingly, the conceptual definition of desistance is not as straightforward as it may first appear. The second type of definition — the operational definition — refers to how a concept is measured in research.

With respect to conceptual definitions, it is perhaps instructive to first discuss a concept — recidivism — that is far more established and straightforward in the criminal justice literature. Recidivism simply means engaging in a new criminal offense after a previous commission of a crime. Recidivism is typically examined in reference to some involvement in the criminal justice system because it is a measure of effectiveness (or lack thereof) of correctional approaches. For example, Maltz (2001, p. 1) defines recidivism as "reversion of an individual to criminal behavior after he or she has been convicted of a prior offense, sentenced, and (presumably) corrected." The National Institute of Justice similarly defines recidivism as a new crime after punishment or correction for a previous crime.¹

¹ National Institute of Justice, "Recidivism," <https://nij.ojp.gov/topics/corrections/recidivism>.

Maltz also questions whether recidivism should take into account only the type of offense for which the individual was originally convicted.

If recidivism is the continuance of crime and desistance is the cessation of crime, it may appear logical to consider them simply different measures of the same phenomenon (Maruna & Toch, 2005). However, definitions of recidivism emphasize involvement in the criminal justice system. Recidivism, therefore, is more of an indicator of criminal justice effectiveness than of a natural progression of a criminal career. Additionally, considering recidivism and desistance to be simply opposite ends of the same spectrum (as some research continues to do; see, e.g., Cochran & Mears, 2017; Maruna & Toch, 2005) may perhaps encourage researchers to view desistance in a binary manner, as something that has occurred if recidivism has not. Recidivism, after all, is an event, which is likely why initial research considered desistance in a similar manner, as an “abrupt and complete cessation of offending” (Healy, 2016, p. 179). Later work began to view desistance as a process that unfolds over time.

Desistance is often thought of as a natural process, taking place outside of the criminal justice system, as opposed to recidivism, which is defined in relation to some criminal justice intervention (Laub & Sampson, 2003; Maruna & Toch, 2005; Uggen & Massoglia, 2003). In other words, by definition, recidivism cannot occur without some criminal justice involvement. In fact, Shover (1996) specifically defined desistance as “voluntary termination” of offending (p. 121). Thus, when and how desistance occurs is likely not fundamentally linked to involvement with the criminal justice system, but it may be facilitated or impeded by it. This is an important distinction. As Rocque and colleagues (2017, p. 188) argued, “The factors that are focused upon in criminal justice practice may differ whether one emphasizes recidivism or desistance as well.” As will be made clear below, recidivism is often viewed as an all or nothing type of outcome: If you recidivate, you have failed. Desistance, as a process, implies that a certain amount of failure may be expected on one’s journey toward cessation of criminal conduct. In other words, recidivism does not necessarily equate to failure. In sum, recidivism and desistance are related, but they are conceptually distinct, which is important for practitioners and researchers to keep in mind.

Conceptual Definitions of Desistance

Developing a comprehensive list of conceptual definitions of desistance from crime is beyond the scope of this paper. However, it will be helpful to briefly review definitions to illuminate how scholars understand desistance. Conceptual definitions are also a useful starting point because without them, measurement strategies have no context.

It is not uncommon for scholars to omit clearly specified conceptual definitions of phenomena.² This seems to be especially true in later years, when desistance as a concept became more established in the literature. It may have seemed unnecessary to provide a specific and detailed conceptual definition.

This paper categorizes conceptual definitions of desistance into two “eras” (see Appendix 1) because of the evolution of the term’s meaning. Era I spans from 1979 to 1999. Although some scholars mentioned desistance briefly before this period, desistance as a research focus began in earnest in the 1980s.

Era II begins in 2000 and takes us to the present. In some ways, this is an arbitrary delineation. But in the early 2000s, three landmark desistance studies were published: Maruna’s (2001) qualitative study of 30 desisting persons, Laub and Sampson’s (2001) essay on desistance, and Bushway and colleagues’ (2001) article on understanding desistance as a process. Thus, since 2000, thinking about desistance has been more nuanced and more likely to appreciate the process-like nature of the phenomenon.

Era I (1979-1999)

Early scholarship rarely considered desistance as a process. Work in Era I generally tended to view desistance as the termination of offending — that is, the end of a criminal career. Shover and Thompson (1992) defined desistance as the “termination of a criminal career” (p. 89). Many of the 15 definitions in Era I conceptualize desistance as being the opposite of recidivism. Blumstein and Moitra (1980), for instance, refer to desistance as “not recidivating” (p. 323). In general, most of these definitions — while not comprehensive — suggest that desistance is an event, not a process.

There were hints, though, that desistance may not be the same thing as termination. Fagan (1989) defined desistance as a process whereby the frequency and severity of violence decrease, culminating in the end of criminal behavior. Bushway and colleagues (2001) argue that Fagan was the first to separate desistance from termination. Additionally, the work of Laub and Sampson, two of the pioneers of “life-course criminology,” has consistently viewed desistance as something that happens over time. However, their most detailed and complex discussion of desistance (Laub and Sampson, 2001) did not occur until Era II.

² Some work does not explicitly state definitions, but they can be inferred from the discussion of desistance. For example, Sampson and Laub (1993) do not define desistance conceptually, but early in the book they discuss the age-crime curve and the decrease in crime in adulthood, which is immediately followed by the introduction of the term desistance.

Era II (2000-Present)

A very clear shift in thinking occurs in Era II. No longer are definitions of desistance dominated by cessation- or termination-like language. Instead, “process” becomes more prevalent in the conceptualizations. At this point, it seems to be generally accepted that desistance “supports” termination (as Laub and Sampson (2001) argued) and takes place over a period of time, which is variable.

In 2001, Shawn Bushway and a group of fellows at the Violence and the Life Course Summer Institute published a seminal article on how to think about and measure desistance. They argued that, historically, desistance had been thought of as an event (e.g., termination of offending). Drawing on the work of Laub and Sampson (2001), Fagan (1989), and Loeber and Le Blanc (1990), they made a clear case for thinking about desistance as a process that leads to termination. Their definition of desistance went further than others in arguing that desistance means a decline in “criminality,” not offending. Previous scholars had stated that desistance was a decline in, or the termination of, offending, which suggests that criminal behavior is the appropriate indicator to measure desistance. Reframing desistance to reflect criminality — or the propensity to offend — is consistent with other work (Laub & Sampson, 2001) and has profound implications for criminal justice evaluation.

If desistance is a process by which criminality declines, then its measurement (discussed in the next section) may not have to rely on behavior or crime. Bushway and colleagues’ (2001) definition suggests that desistance is a process that involves a decrease in the rate of offending over time, where offending is used to measure criminality. It is not, however, clearly the case that criminality must be measured via crime.

Stages of Desistance

Other advancements in conceptualizations of desistance from crime have built on the distinctions between desistance and termination, and assert that desistance is not a uniform or monotonous process that, once begun, is gradual and continuous.

Aggregate, cross-sectional graphs of age and crime do give the impression that the desistance process is continuous. However, panel or longitudinal data following the same individuals over time present a different story. In some ways, Matza’s (1964) description of engaging in and exiting delinquency applies here. He argued that youth “drift” between conventional and delinquent society — sometimes they go straight, and other times they fall back into delinquency. Piquero (2004) argued that many criminal careers involve “intermittency.” In other words, “offenders experience brief lapses and sporadic episodes of crime occurring at sometimes unpredictable intervals” (p. 105).

Although criminologists have long noted this zigzag or intermittency with respect to criminal careers, this observation has only recently found its way into definitions of desistance. It is a vital part of understanding just what desistance is. It suggests that to properly diagnose desistance from crime, researchers must pay attention to more than simply whether an individual has a crime-free gap.

Maruna and Farrall (2004) provided a useful definition of desistance that explicitly incorporates stages. They proposed that desistance has two stages. Primary desistance is “any lull or crime-free gap.” Secondary desistance — which should be of much more interest to practitioners — is a more permanent change from offending to nonoffending and involves the transition to a noncriminal identity (p. 4). McNeill and Schinkel (2016) added tertiary desistance to this delineation, which is when the community views the individual as a person not committing crime.

Others have similarly delineated desistance into stages, such as early- and late-stage desistance (Healy, 2010; King, 2014; Shapland & Bottoms, 2017). For example, Farrall and Calverley (2006) classified their sample of persons on probation into three groups: (1) no offending; (2) showing signs of desistance; and (3) continued offending, which was further broken down into increasing or serious offending.

The stage-based approach implies that definitions focusing on termination will not adequately capture desistance. Termination, on the other hand, is a bit more straightforward: It is the cessation of a criminal career, or the last offense committed. In some respects, the study of recidivism seeks to identify termination. It cannot, as recent definitions imply, capture desistance from crime.

A Working Definition of Desistance

The evolution of scholarship over the last 40 years clearly shows that desistance is best represented as a process, rather than an end state. Further, that process is not likely to be uniform, smooth, or irreversible.

Nonetheless, it appears that desistance is a general phenomenon and applies to individuals who may have engaged only in minor delinquency, as well as to persons engaging in serious, chronic criminal activity. Some have questioned whether desistance can occur for those who have committed only a few criminal acts, or for those who offend at low rates (Laub & Sampson, 2001; Maruna, 2001). Is it really desistance, they wonder, when an individual who was never seriously engaged in criminal behavior stops offending? Others (Maruna & Farrall, 2004) suggest that practitioners should focus on internal, identity-based changes, rather than initial or perhaps temporary forays into reduced offending.

If desistance is a universal phenomenon that affects all individuals — albeit at different points in their life-course — then it does not make sense to restrict its

study to only those involved in serious, chronic criminal activity. Additionally, if desistance truly occurs with a change in identity or attitudes, then arguably its conceptualization should shift from a focus on criminal behavior. Thus, Bushway and colleagues' (2001) definition of desistance seems to be closest to the appropriate way to understand the phenomenon. Desistance is about criminality, not necessarily crime. This conceptualization allows researchers to examine the desistance process without concern for level of offending.

Criminality is defined as a propensity to engage in offending, however, and so the two are very clearly connected. A useful conceptual definition of desistance, then, is "the process by which criminality, or the individual risk for antisocial conduct, declines over the life-course, generally after adolescence." Thus, desistance may or may not occur even if an individual recidivates or does not engage in antisocial behavior. This again implies that recidivism measures are not likely to sufficiently capture desistance. The concept of false desistance — when a particular measurement strategy, often using a binary or event-like definition, indicates desistance that has not yet occurred — would be avoided using this conceptualization.

For practitioners and researchers, this conceptual definition means that they should use criminal behavior as an indirect measure when studying desistance. Desistance may occur even if criminal conduct continues. The key is to capture criminality and build in assessments that allow for an examination of how criminality is — or is not — changing. Criminality can change in several ways, resulting in less serious offending, less frequent offending, or less variety in offending. Additionally, the desistance process generally concludes with termination, or the cessation of criminal conduct.

Operational Definitions of Desistance

Operational definitions in research are akin to measurement strategies used to capture phenomena of interest. For example, although the definition of crime may appear straightforward at first, how researchers actually measure it varies substantially because of data availability or the sample under examination. Some may use self-report measures of how many times an individual has engaged in a number of offenses, which is then summed to create an overall scale of criminal behavior. Others may use a slightly different version of a criminal behavior scale, focusing on whether an individual has engaged in any of a particular number of offenses, with higher scores indicating a greater variety of offenses committed. There are various reasons why researchers use a particular type of measurement strategy (see Sweeten, 2012).

Recidivism is also measured in different ways, despite its conceptual clarity. For example, some may measure recidivism using official reports (arrests, convictions, sentences) or self-reports of criminal conduct. Then researchers

must decide the length of follow-up, which is crucial for assessment. Many more individuals will “fail” the longer the follow-up period. And so it is with desistance: the longer the follow-up period, the less likely desistance will be found if using binary or event-like measurement strategies.

Like conceptualizations, operational definitions of desistance have evolved over time. Operational definitions are linked to conceptual definitions because the way something is measured is ideally guided by how that phenomenon is understood. Early operational definitions followed early conceptualizations of desistance. Once desistance was widely acknowledged to be a process, measurement strategies changed to reflect that. Appendix 2 divides operational definitions into Eras I and II. Again, this list is not comprehensive; it is meant to reflect the evolution of how research has measured and examined desistance over time.³

Era I (1979-1999)

Early measurement of desistance often examined whether individuals had reoffended in a certain period of time. For example, Cusson and Pinsonneault (1986) used a five-year window for persons imprisoned for robbery who had recidivated. Those who had not been arrested during that time had desisted. Barnett and Lofaso (1985), using the Philadelphia Birth Cohort study, considered desistance to have occurred if there were no arrests between the last arrest and age 18. The length of follow-up and ages varied substantially across studies. Some used one year (e.g., Paternoster, 1989), others three years (Shover & Thompson, 1992), and some more than 10 years (Farrington & Hawkins, 1991).

At the same time, it is clear that some scholars had begun to think of desistance and measure it in a more complex manner. For example, using follow-up data to the Philadelphia Birth Cohort study, Rand (1987) defined desistance with a bit more nuance, using seriousness and frequency of offending for those who had engaged in serious delinquency. Laub and colleagues (1998) also sought to measure desistance in a process-like manner; they were perhaps the first authors to use trajectory analyses to plot desistance from crime.

Era II (2000-Present)

By Era II, the understanding of desistance as a process had become entrenched in the literature. After the early 2000s, researchers increasingly used specific analytical techniques to measure desistance. Although Laub and Sampson (2003) operationally defined desistance as an absence of new offenses (arrests) up to age 70 (p. 91), they also examined trajectories of offending and modeled desistance

³ This list is based in part on the work of Kazemian (2007) and Rocque (2017), who both provided lists of operational definitions of desistance from crime.

using multilevel models. These approaches allow researchers to model changes in crime, including factors that increase or decrease offending over time. This appears to be relatively standard in recent work; Abeling-Judge's study (2020) is one of the latest examples.

Some scholars in Era II have continued to use the absence of offending during a particular period of time to represent desistance (e.g., Maume, Ousey, & Beaver, 2005). If the desistance process has begun for individuals, then there will likely be an absence of offending during that period. However, if the conceptual definition proposed in the previous section accurately captures desistance, then binary or event-like measurement strategies will not be adequate.

It is important to note that nearly all studies have measured desistance using some form of antisocial behavior. That is consistent with the conceptual definition of desistance as a decline in, or absence of, criminal conduct. However, if desistance supports such a decline and is, in fact, a change in criminality, then it could potentially be measured without reference to actual behavior. Researchers could use other indicators such as self-control, which some regard as the cause of criminality (Gottfredson & Hirschi, 1990), or attitudinal measures examining how individuals view crime. Scholarship has shown, for example, that over time, those engaged in crime tend to view such behavior less favorably and as less likely to pay off (Giordano, Cernkovich, & Rudolph, 2002; Shover, 1996). These attitudes have been associated with desistance, measured behaviorally; however, it is possible that the attitudes are themselves indexing desistance defined by a decline in criminality.

Criminological researchers have developed measures of criminality. For example, Walters and colleagues created a 14-question measure of lifestyle criminality that included offending behavior and outcomes such as education, marital failure, and job stability (Walters, White, & Denney, 1991). Some items in their measure may need to be revised or updated. Another measure of criminality — risk assessments — are generally used to develop a “risk of recidivism” score. Risk assessments often use offending history (e.g., crime) along with dynamic (e.g., changeable) components like employment, family relations, and attitudes. Criminality measures should be constructed using a variety of attitude and behavioral indicators.

As noted, scholars typically use criminal behavior to study desistance (and recidivism). The definition offered in this paper suggests that criminal behavior represents an indirect indicator of desistance. Criminality is the propensity to engage in criminal behavior, and so such behavior is, clearly, conceptually relevant. When using criminal behavior for evaluation research, particularly in a binary format, there is a potential to overlook desistance. In other words, criminal behavior may take place while an individual is desisting, for a variety of reasons.

Research using criminal behavior should be explicit about what is being measured and the drawbacks of such a strategy. For example, relying on purely official measures of crime (e.g., arrests, convictions) is problematic due to racial biases in the application of the law (Tonry, 2010). However, official measures of crime may be all that are available to researchers or practitioners. Clearly, from a public safety standpoint, if a large percentage of people commit new crimes, whether they are in the process of desisting may seem less important. Additionally, and importantly, criminal behavior can help identify the end point of desistance, that is, termination. Without criminal behavior, in fact, it is difficult to know when the desistance process has completed. Thus, it is recommended that researchers measure both criminality and crime — perhaps as part of the same underlying trait — in evaluation and policy research.

Methodological Techniques Used To Examine Desistance

Scholars have used distinct methodological approaches to examine and understand the desistance process. This section discusses some of these approaches: qualitative and quantitative data, official and self-report measures, sample and population, and types of modeling techniques. Some approaches are more common than others, but each has value. It is important to recognize what information each technique or approach can provide — and what it cannot provide.

Quantitative vs. Qualitative Methods

Quantitative approaches to studying desistance have used varying measurement strategies, reviewed in Appendix 2. Often desistance is quantitatively measured in terms of whether new involvement in the criminal justice system or new involvement in antisocial behavior has occurred over a set period of time. Additionally, the use of multilevel models or trajectory analyses is clearly a quantitative strategy and not applicable to qualitative methods. Qualitative approaches seem more useful in using subjective definitions of desistance. For example, in-depth interviews allow researchers to probe attitudes toward antisocial behavior and intentions to make changes.

At the same time, it is possible to operationally define desistance in a quantitative manner (e.g., no new arrests over the last three years) and analyze the data qualitatively. One example is the work of Haggård and colleagues (2001). In their qualitative study of individuals who had committed violent crimes, they defined desistance as not having been convicted of a crime for the past 10 years or more. They analyzed the sample using qualitative techniques to determine how desistance had occurred.

Researchers can use the same definitional approach in both quantitative and qualitative methods. Maruna (2001) asked respondents if they were in the process of desisting and whether they had engaged in any crimes over the past year. This type of definition is ideal for qualitative methods but can also be used in quantitative work. Massoglia and Uggen (2007) used quantitative methods but were able to provide two forms of measurement: one asking individuals if they were engaged in less antisocial behavior than they had been in the past, and another asking about their behavior in relation to their peers.

Both qualitative and quantitative approaches can be valuable in measuring desistance. It is important to note, though, that the two methods provide different information. Qualitative approaches are useful for understanding mechanisms by which correlates of desistance promote behavioral reform (Veysey, Martinez, & Christian, 2013, p. 235). This does not mean, however, that mechanisms cannot be studied via quantitative means.

Ideally, to best understand the when, how, and why of desistance, researchers should use a mixed-methods approach. However, for practitioners, the type of data available for evaluation are likely to be official records. Thus, quantitative methods — including quantitative operational definitions — are more applicable to evaluation research. Definitions that are more subjective, or ask individuals to indicate their intentions to desist, may be less relevant to such work. Quantitative methods also allow researchers to examine statistical correlations or predictors of desistance, which will likely be relevant for policymakers. In sum, the selection of qualitative or quantitative measurement strategies must be based on the availability of data and the purpose of the study.

Qualitative approaches have led to novel theoretical perspectives on desistance (e.g., Giordano, Cernkovich, & Rudolph, 2002), and, thus far, qualitative work does not appear to contradict quantitative studies (Veysey, Martinez, & Christian, 2013). In fact, in their review of desistance scholarship, Bersani and Doherty (2018) argued that the two approaches often focus on different factors (e.g., structural factors examined quantitatively and subjective factors examined qualitatively).

Official vs. Survey Data

Another consideration is the source of data used for assessing desistance. Although desistance from crime is often considered a process of devolution from engaging in antisocial behavior, researchers are limited in the data available for analysis. Historically, criminologists and policy researchers have used official records (e.g., police reports, court convictions) to measure offending. However, the limitations of this approach have long been documented (Sellin, 1931). For example, what researchers have called “the dark figure of crime” — or the

large portion of criminal behavior that goes undetected by the criminal justice system — clearly causes problems for desistance scholars. Also, the notion of false desistance initially emerged in response to the use of official data. An individual may appear to have desisted when looking at official records (e.g., arrest-free over the last three years), but he or she may have engaged in antisocial behavior during that time.

This does not mean that official records should be disregarded. Other forms of data collection (e.g., surveys or interviews) that do not follow up with individuals until their death or imprisonment for life can also lead to false desistance. Official records do have value and can be used to gain insight into desistance. If desistance is conceptually defined as a process, however, binary (e.g., arrested or not) measurement strategies may not be ideal. In that case, researchers can look at the frequency of arrests across a number of years (the longer, the better), explore a decrease in “seriousness” of offending over time (Loeber & Le Blanc, 1990), or incorporate timing into assessments.

Government studies may be restricted to using official records when examining desistance. For example, the Bureau of Justice Statistics regularly releases reports on recidivism of individuals involved in the justice system. Recidivism is measured in the manner discussed previously — the percentage of individuals released from state prison who were arrested by year. One report (Alper, Durose, & Markman, 2018) included an examination of desistance from crime, but defined it as having no additional arrests after a particular year (e.g., the opposite of recidivism). They found that only 17% of released individuals were not arrested within nine years. A nine-year follow-up may be long enough to capture desistance, given some research that has shown that the risk of rearrest is similar for persons convicted of a crime who have completed any court-ordered punishment and for the general population after about six or seven years (Kurlychek, Brame, & Bushway, 2006). However, other research has indicated that the time frame for the risk of a person convicted of a crime reoffending to match the general population’s risk is 10 years (Hanson, 2018). Measuring desistance using binary “arrested or not” variables also seems more relevant to capturing termination, rather than the process of desistance. Additionally, if only a handful of post-release years are available, the absence of arrests may capture a temporary lull in offending or undetected offending.

Researchers have also used surveys or interviews that rely on individual reports of behavior to examine desistance. This method ostensibly addresses the dark figure of crime issue because it does not require the criminal justice system to have been aware of the acts. It also requires strong assumptions regarding individual honesty and memory. In the past, longitudinal data were difficult to come by. In fact, certain scholars argued against their use because we already know what happens over the life-course: Crime declines with age (Gottfredson & Hirschi, 1987). Today, there are numerous projects that follow the same

people over time (a longitudinal, panel design). These projects provide a deeper understanding of how crime patterns change over the life-course.

A few studies have compared the use of official and survey data when examining desistance from crime. Uggen and Kruttschnitt (1998) compared self-reported “illegal earnings” with arrest and found that men and women differed with respect to desistance on both measures, though gender- and race-based differences in predictors of both types of desistance emerged. Massoglia and Uggen (2007) expanded on this type of comparison, using four operational definitions of desistance that included an official measure (no arrests in the last three years). This was compared to a subjective measure that asked individuals to think about the last five years and whether they had engaged in less crime, a reference group measure that compared individuals to their peers, and a behavioral measure that used self-reports of offenses for the last three years. The highest rate of desistance was found using official records (85% had desisted from crime), and the lowest was found with the reference group measure (60% had desisted from crime). Interestingly, there were race and gender differences with respect to these measures (whites were more likely to desist compared with nonwhites using the behavioral variable, but less likely to desist using the reference group variable).

More recently, Farrington and colleagues (2014) examined data from the Cambridge Study in Delinquent Development, a sample of 411 working class boys that began in 1961. They argued that, theoretically, desistance may occur later using self-reports compared with official reports because it is logical that people may continue to commit crimes and not get caught. According to self-reports, the age of desistance varied by type of crime (from 15.24 to 38.18), with an overall average age of 35.20. Removing theft from work and fraud, the average age of desistance derived from self-reports was much younger — 19.50 years old. Using convictions (official records), the average ages also varied, but the overall average for the same crimes was older — 25.07 years old. Removing theft from work and fraud reduced the age of desistance to 23.38, which was older than the age of desistance for these crimes using self-reports.

It should be noted, however, that research has indicated considerable agreement between self-reports and official records (Krohn et al., 2010; Maxfield, Weiler, & Widom, 2000), lending support to the idea that with some variation, self-reports are reasonably accurate. Piquero, Schubert, and Brame (2014), for example, found that for a group of youth involved in the juvenile justice system who commit serious offenses, self-reported arrests and arrest records were generally in agreement, with few race differences. However, they did find gender differences, with males reporting more arrests than would have been expected from their self-reported level of arrests. Early work has also indicated that African American males may underreport criminal behavior (Krohn et al., 2010).

Sample and Population

Another important consideration is the type of sample used in desistance research. For example, much desistance scholarship relies on community samples and is heavily weighted toward persons committing nonserious offenses or persons committing no offenses. The earliest desistance research, however, did use samples of those convicted of a crime (e.g., Glueck & Glueck, 1940) and, with the publication of the Pathways to Desistance Study data, more scholarship on desistance with samples of persons committing serious offenses is emerging. But such considerations should not be overlooked. Laub and Sampson (2001) argued that, since desistance is the norm for groups of persons not committing criminal acts, they should not be the focus of scholarly attention. Laub and Sampson raised an important question regarding whether an individual can be said to have desisted after only one offense. Meanwhile, Maruna and Farrall (2004) noted that researchers do not know much about why persons committing nonserious offenses desist.

It seems safe to say that to understand desistance, it is essential to examine both community samples (e.g., individuals not involved in the criminal justice system) and samples of those convicted of a crime. Policy-relevant information may be derived from nonoffending or community samples. For example, Warr's (1998) analysis of the National Youth Survey found that peers are an important part of whether one continues to offend, and recent work with samples of persons not committing criminal acts supports this finding (Copp et al., 2020). This information can be used to support parole orders concerning the routine activities of individuals released from incarceration. For example, orders preventing individuals from socializing with former peers may be important in helping facilitate desistance. This information may also help explain why those who are released from incarceration and move away from their previous locales have more positive behavioral outcomes (see Kirk, 2020).

At the same time, if researchers are interested in evaluating the effects of criminal justice practices or interventions on desistance, then samples of persons convicted of a crime are clearly necessary. There are several well-known desistance studies using such samples from specific criminal justice agencies, including Delaware (Paternoster et al., 2016), California (Ezell, 2007), and Maryland (Caudy et al., 2014; Wooditch, Tang, & Taxman, 2014). But studies examining how criminal justice interventions affect desistance (rather than recidivism) are lacking. More information is needed on which approaches facilitate desistance.

Modeling Techniques

The final consideration examined here is how scholars model desistance from crime. As noted previously, some studies have defined desistance as binary,

meaning that it is considered to have occurred if no offenses are recorded within a certain time frame. Persons who desist can then be compared to persons who persist. Defining desistance as a process, however, requires other modeling strategies. The conceptual and operational definitions researchers use should inform the ways in which desistance is modeled. Desistance has been modeled several ways in the literature, including regression analysis, trajectory group analysis, growth curve analysis, and survival analysis.

Modeling techniques vary by conceptual definition and are more relevant to quantitative approaches. If desistance is considered a binary phenomenon, and individuals in the sample are coded as having desisted or not, then a logistic regression approach can be used (see Shover & Thompson, 1992; Warr, 1998). Daniel Nagin introduced trajectory group analysis to criminology; it allows the researcher to identify latent groups of individuals who follow similar offending pathways over time. This approach is useful because it does not assume each person has the same trajectory of offending (see, e.g., Bushway, Thornberry, & Krohn, 2003; Cochran & Mears, 2017; Laub, Nagin, & Sampson, 1998). Growth curves also allow the researcher to model the overall process of change in offending over time, but it does not break the sample into distinct groups (see Hussong et al., 2004; Laub & Sampson, 2003; Rocque, Posick, & Paternoster, 2016).

Survival analyses take into account behavior (e.g., offending or not) and time to that behavior. Bushway and colleagues (2004) suggested that survival analyses allow scholars to truly model the process of desistance, marrying recidivism and desistance scholarship. “Thirty years ago, recidivism and desistance were complementary measures. Those who failed after a certain period were recidivists, and those who did not were desisters. Now, cutting-edge recidivism studies focus on hazard rates of offending over time and cutting-edge desistance studies focus on measuring trajectories of offending over time” (Bushway, Brame, & Paternoster, 2004, p. 91). They then demonstrated that these two measures are actually conceptually similar, with one including time and the other allowing the estimation of multiple trajectories. Bushway and colleagues called for survival analyses and trajectory analyses to be integrated to best study desistance from crime.

Finally, Paternoster and Bushway (2009), in their exposition of a new theory of desistance, recommended time-series analyses as a way to model desistance (and theoretical predictors) over time. Time series are used when panel data are available, typically to examine trends or breaks in trends, such as crime rates. Interestingly, they argued that their approach is consistent with a view of desistance as a “latent propensity to commit crime over time” and that their method allows one to “study the continuous latent propensity and not the realization of this propensity” (p. 1137). Paternoster and Bushway then showed that if a time series is nonstationary (as would be expected from trajectories

of offending over time), then scholars can determine if there is evidence of a structural break that led to changes in the trajectory. This seems applicable to researchers and practitioners who wish to evaluate whether a program or intervention was effective in reducing criminal conduct.

Modeling techniques are not without consequences. Research has shown that varying approaches to examining desistance arrive at varying conclusions. For example, Bushway and colleagues (2003) used the same dataset to explore two methods of measuring desistance. The first method defined those who committed a crime before age 18 but not after age 18 as having desisted; this method identified 27.6% of the sample as having desisted. The second method used trajectory analyses, which produced seven latent groups. One group was labeled “bell-shaped desisters” and represented 8.4% of the sample. Importantly, they found that “there is only agreement by the two methods in 4.8% of the cases” (p. 146). Another study, by Lussier and colleagues (2015), used four methods — the binary approach, trajectory modeling, dynamic classification tables, and survival analyses — and similarly showed variations in conclusions across methods.

As an additional point, modeling techniques can only get the research so close to identifying causality. When evaluation research is the focus, randomized trials are preferred.

Unanswered Questions and Recommendations to Practitioners

The conceptual and operational definitions of desistance have evolved over time. It appears that a consensus has been reached that, conceptually, desistance is a process and is distinct from a state of termination. Thus, static definitions and modeling strategies are inadequate. However, the best approach to operationally define the process remains in dispute. The choice between survey and official records, quantitative and qualitative methods, types of samples, and various modeling techniques is consequential for the researcher.

Type of Data

The type of data used — official records or surveys — will clearly be related to data access. If survey or interview data are available, they should be used because they allow a more accurate picture of actual behavior than arrest and convictions, which are contaminated by legal decisions. Additionally, surveys allow the inclusion of other indicators, such as antisocial attitudes, self-control, and job and marital stability, that may be used to construct criminality measures. In other words, whether a person is arrested is contingent on whether he or she

committed a crime (ideally), whether that crime came to the attention of the police, and whether the police considered a crime to have occurred and had the necessary resources and evidence to make an arrest. A survey or interview question asking someone if he or she engaged in a particular type of crime is simpler and more direct.

Qualitative vs. Quantitative Method

The choice of a quantitative or qualitative method is more complex. If only official data are available, quantitative approaches are generally necessary. However, survey and interview data enable both quantitative and qualitative methods. The choice between the two depends on the purpose of the study. If the goal of a project is to identify the correlates of desistance, quantitative approaches are more appropriate. However, if the purpose is to understand the mechanisms by which desistance occurs, including how particular policies or interventions influence that process, qualitative approaches are warranted. The purpose of the project should guide which method is chosen.

If data access is not an issue, researchers should assess both correlates and mechanisms of desistance. This may lead to a mixed-methods approach, but there is precedent for that approach in the field (e.g., Giordano, Cernkovich, & Rudolph, 2002; Laub & Sampson, 2003; Sampson & Laub, 1993).

Type of Sample

The choice of a sample of persons who have been convicted of a crime or a general sample is again dependent on the purpose of the project. Thus far, it does not appear that the findings from samples of persons who have committed a crime contradict those from more general samples. If the goal is to understand which informal processes are related to desistance (and how), general samples can be informative. However, as is generally the case, if researchers and practitioners are evaluating a criminal justice intervention or program, samples of persons who have committed a crime are necessary.

Follow-Up Time Frame

Another unanswered question is how long the follow-up time frame should be to adequately capture desistance. Researchers have assessed recidivism using varying windows, often one to three years. Although this is certainly adequate to determine whether an individual has reoffended, and data show about 68% will do so within three years (Alper, Durose, & Markman, 2018), it is not long enough to capture the desistance process. Studies to date have indicated that the risk of recidivism for persons convicted of a crime declines to a point indistinguishable

from persons never convicted of a crime after nine or 10 years (Hanson, 2018). Thus, a follow-up period of at least nine to 10 years seems necessary to capture the desistance process.

It would be useful if researchers and practitioners had access to historic data so they could use previous cohorts to provide longer-term assessments. For evaluation research, however, short follow-ups may capture only certain stages of desistance. Further, research has shown that the effect of the criminal justice system on desistance may take some time to emerge (Farrall & Calverley, 2006; Farrall et al., 2014).

Measures and Modeling of Desistance

If desistance is considered to be the termination of offending, then binary measures (committed a crime or not) are sufficient. If they are restricted to using official data, researchers should consider the number or variety of arrests or convictions to better capture the desistance process. This would allow a more nuanced examination of whether criminal conduct is decreasing or remaining stable, as well as a more accurate assessment of whether an absence of offending during a particular time period is more than a temporary “lull” in such behavior.

However, there appears to be a consensus on the idea that desistance is a process and that it is best measured using a model that captures trends over time, such that trajectories can be estimated. Survival analyses or growth models appear to be well-suited to this task. Group-based modeling is also useful, but there are questions about the interpretation of the groups that emerge (Sampson & Laub, 2005). Group-based modeling seems more suitable for theoretical tests than for evaluations of policy and practice.

Indicators of Desistance

Almost without exception, scholars have measured desistance using behavioral indicators (e.g., arrests, self-reports of crime). If desistance is a process, then binary indicators are insufficient. The question then becomes which behaviors represent the most useful indicators of desistance.

Frequency and variety scores are among the most used measures of criminal behavior. They provide slightly different information. Frequency scores record the number of offenses committed over a particular time period. These indicators are useful for evaluating whether criminal behavior rates decline over time. However, frequency scores have been criticized for being skewed by nonserious behaviors. For example, if a frequency score includes 10 items, one of which is speeding, a person who speeds a lot might be coded as a person who offends at high rates or chronically. For that reason, Sweeten (2012) recommended the

use of variety scores, which are constructed by summing the number of distinct offenses an individual engaged in over a period of time.

A question that desistance scholars have not addressed thus far is whether desistance can be measured using noncriminal indicators. Laub and Sampson (2001) argued that desistance is a process that supports termination from offending, and Bushway and colleagues (2001) suggested that it is a reduction in criminality. The reduction of criminal behavior is the outcome or result of desistance from crime. As such, it is an appropriate indicator — but an indirect one. Direct measures of criminality could ostensibly better capture desistance. For example, scholars should explore self-control, antisocial attitudes, and antisocial or prosocial identity. They should also explore other measures of criminality, such as popular correctional risk assessments. None of these indicators, however, will perfectly align with criminal behavior over time, as crime is the result of criminality, opportunity, and contextual and other factors.

Focusing on criminality, however, avoids some of the pitfalls associated with using crime to measure desistance. Issues like false desistance, temporary lulls in offending, and time to offense are not as salient if researchers focus on criminality. Criminality is a latent trait that, if properly operationalized and measured, may more accurately assess whether desistance is occurring or has occurred than behavior, which is the result of criminality plus random noise. Thus, researchers should explore using indicators of criminality in desistance scholarship. Because criminality is theoretically a continuous latent trait, binary or dichotomous indicators would not be adequate. If desistance is the process by which criminality declines, then reductions in the trait would be evidence that desistance is occurring. Researchers could use criminal behavior to measure termination — once offending ceases, the process is complete. Termination, under this specification, would be slightly trickier to measure, given the well-known difficulty with establishing that offending truly has ceased.

Conclusion

The study of desistance from crime has matured from historical recognition that crime, in the aggregate, has a curvilinear relationship with age, to sophisticated modeling strategies meant to capture the process. This paper examined the conceptual and operational definitions of desistance as they have evolved in the last 20-30 years. In addition, the paper offered a conceptual definition that, following Bushway and colleagues (2001), views desistance as a process that causes a decline in crime and is best measured via criminality, rather than via crime.

The paper explored conceptual and operational definitions using a somewhat arbitrary delineation of eras, but one that clearly demonstrates how research on desistance has changed over time — from the opposite of recidivism to the modeling of a process. Defining desistance as a process necessitates somewhat complex measurement or modeling strategies, such as survival analyses, growth curves, or group-based trajectory analyses.

The measurement of desistance also varies according to whether researchers use survey data or official records and qualitative or quantitative methods. Generally speaking, self-reports are preferable to official records, but researchers can use either to effectively measure desistance. However, if desistance is a decline in criminality, then official records are only able to measure the process indirectly. Qualitative methods differ from quantitative methods in the type of information they produce; if possible, researchers should use both qualitative and quantitative methods. This will help them best understand the ways in which policies and practices influence desistance (or do not).

The last section reviewed recommendations and suggested that desistance can be measured using indicators other than criminal behavior. This is somewhat novel but is consistent with the idea that desistance is a process by which criminality (not necessarily crime) declines. Using indicators of criminality may help avoid the complications that arise when using crime to measure desistance.

Overall, the literature on desistance from crime is rich and continually expanding. New and innovative ways to define and measure desistance will likely emerge in the near future. Researchers, practitioners, and policymakers need to keep abreast of these developments so they can integrate the work into evaluations and make criminal justice policy as effective as possible.

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Appendix 1. Conceptual Definitions of Desistance From Crime

	Citation	Definition
Era I: 1979-1999		
1	Trasler (1979)	“Giving up altogether the habit of” crime (p. 315)
2	Blumstein & Moitra (1980)	“Not recidivating” (p. 323)
3	Shover & Thompson (1992)	“Termination of criminal careers” (p. 89)
4	Cusson & Pinsonneault (1986)	“The decision to give up crime” (p. 73)
5	Rand (1987)	When individuals “stop offending” (p. 134)
6	Feld & Straus (1989)	“The cessation of a pattern of criminal behavior” (p. 145)
7	Fagan (1989)	“A process of reduction in the frequency and severity of family violence, leading to its eventual end when ‘true desistance’ or ‘quitting’ occurs” (p. 380)
8	Loeber & Le Blanc (1990)	“A slowing down in the frequency of offending (deceleration), a reduction in its variety (specialization), and a reduction in its seriousness (de-escalation)” (p. 382)
9	Farrington (1992)	“End” of a criminal career (p. 521)
10	Sampson & Laub (1993)	“Decline (in crime rates) ... across the adult life span” (p. 6)
11	Sommers, Baskin, & Fagan (1994)	“The cessation of a pattern of criminal behavior” (p. 127)
12	Warr (1998)	“Reduce(d) deviant behavior during adulthood” (p. 184)
13	Uggen & Kruttschnitt (1998)	“The transition from criminal to noncriminal conduct” (behavioral desistance) and “desistance in the eyes of the law” (official desistance) (p. 339)

14	Laub, Nagin, & Sampson (1998)	“The movement away from criminal and antisocial behavior patterns” (p. 225)
15	Farrall & Bowling (1999)	“The moment that a criminal career ends” (p. 253)

Era II: 2000-Present

1	Laub & Sampson (2001)	“The underlying causal process” leading to “termination” of crime (p. 1)
2	Bushway et al. (2001)	“The process of reduction in the rate of offending (understood conceptually as an estimate of criminality) from a nonzero level to a stable rate empirically indistinguishable from zero” (p. 500)
3	Maruna (2001)	“The process by which stigmatized, former offenders are able to ‘make good’ and create new lives for themselves” (pp. 6-7)
4	Giordano, Cernkovich, & Rudolph (2002)	“Movement away from a criminal lifestyle” (p. 990)
5	Bottoms et al. (2004)	“Significant crime-free gaps” (p. 368)
6	Maruna & Farrall (2004)	Primary desistance: “Any lull or crime free gap”; Secondary desistance: “The movement from the behaviour of non-offending to the assumption of a role or identity of a non-offender or ‘changed person” (p. 4)
7	Farrall & Calverley (2006)	“The process of ending a period of involvement in offending behavior” (p. 1)
8	Massoglia & Uggen (2007)	General: “The steady movement away from antisocial behavior,” (p. 91) but broken into subjective and reference group desistance
9	Bersani, Laub, & Nieuwbeerta (2009)	“A reduction in offending across the life course” (p. 3)
10	Paternoster & Bushway (2009)	“Eventual termination of ... crime” (p. 1104)
11	Healy (2010)	“Terminat(ion of) ... criminal careers” (p. 1)

12	Glynn (2013)	“Cessation of ... offending behaviour” (p. 1)
13	Weaver (2016)	“Abstinence from offending ... to include ... the process by which people come to cease and sustain cessation of offending behaviour” (p. 8)
14	Thomas & Vogel (2019)	“The decline in criminal behavior from adolescence to young adulthood” (p. 2)
15	Fredriksson & Gålnander (2020)	“A series of complex processes by which individuals transform from offenders into nonoffenders” (p. 1)

Appendix 2. Operational Definitions of Desistance From Crime

	Citation	Measure/Definition of Desistance
	Era I: 1979-1999	
1	Barnett & Lofaso (1985)	No arrests between Kth (where K is the number of arrests the individual had accumulated) arrest and age 18
2	Jolin (1985)	Been involved in serious offending in the past but have not had a felony/misdemeanor arrest for five years
3	Cusson & Pinsonneault (1986)	Individuals released from prison who had not been arrested for five years
4	Rand (1987)	Number of crimes and seriousness of crimes before and after life events
5	Paternoster (1989)	No participation in delinquency one year following admission of any engagement in delinquency
6	Feld & Straus (1989)	Presence of spousal assault one year following assault in year one
7	Farrington & Hawkins (1991)	Conviction at age 21 but not between ages 21 and 32
8	Loeber et al. (1991)	Nonoffending throughout a period of less than one year
9	Shover & Thompson (1992)	No arrests in the 36 months following release from prison
10	Farrington & Wikström (1994)	Age at the last officially recorded offense up to age 25
11	Mischkowitz (1994)	Last conviction having occurred before age 31 and lack of conviction or incarceration for at least 10 years
12	Pezzin (1995)	Individuals who reported having committed offenses in the past but who did not report any criminal income in 1979
13	Uggen & Kruttschnitt (1998)	Behavioral desistance: Absence of self-reported illegal earnings during a three-year follow-up period

14	Laub, Nagin, & Sampson (1998)	Trajectory analysis of offending: A decline over time to “negligible” levels represents desistance
15	Warr (1998)	Individuals who did not report having committed any offenses in the past year

Era II: 2000-Present

1	Kruttschnitt, Uggen, & Shelton (2000)	Absence of new officially recorded offenses or probation violation throughout a two-year period
2	Haggård, Gumpert, & Grann (2001)	During the follow-up period, no reconviction in the previous 10 years (at least)
3	Maruna (2001)	Individuals who identified themselves as those involved in long-term habitual offending, who claimed that they would not be committing offenses in the future, and who reported at least one year of crime-free behavior
4	Giordano, Cernkovich, & Rudolph (2002)	Criminal involvement between 1987 and 1995 for a sample of institutionalized (at 1987) youth; for official crimes, desistance was defined as having no arrests for at least two years prior to second interview
5	Maruna et al. (2002)	Absence of reconviction after release from prison during a 10-year window
6	Laub & Sampson (2003)	Absence of arrest (follow-up to age 70)
7	Stouthamer-Loeber et al. (2004)	Individuals involved in persistent serious delinquency in adolescence and who did not commit serious delinquency during early adulthood (ages 20-25)
8	Farrall & Calverley (2006)	Gradual slowing down of offending, self-identified and measured through official records
9	LeBel et al. (2008)	Whether the individual was reconvicted or reimprisoned within a 10-year follow-up
10	Bersani, Laub, & Nieuwebeerta (2009)	Log-odds of conviction from age 12-79, using multilevel models

11	Sweeten, Pyrooz, & Piquero (2013)	Multilevel Poisson models of offending for a serious juvenile delinquency sample over five years
12	Aaltonen (2016)	Three definitions: Return to prison, reconviction, or new fine in four-year follow-up
13	Paternoster et al. (2016)	Survival time from release to incarceration to arrest or end of study period
14	Thomas & Vogel (2019)	Separate negative binomial regression models for adolescents and adults on a variety of offending
15	Abeling-Judge (2020)	Multilevel binomial models of offending for a serious juvenile delinquency sample over 36 months

Source: Kazemian, 2007; Rocque 2017, with additions.

Chapter 2

Biosocial Factors and Their Influence on Desistance

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The Desistance Process From a Biosocial Lens

The field of criminology, which is rooted in sociology, has traditionally been reluctant to incorporate knowledge from other scientific disciplines to help understand the onset, maintenance, and desistance of criminal behavior. Yet scientific advancements made in the natural and biomedical sciences using sophisticated technologies, methodologies, and statistical approaches have demonstrated that genetic and biological factors influence nearly all human behaviors (Polderman et al., 2015), including criminal and antisocial behaviors (Rhee & Waldman, 2002).

Over 15 years ago, notable criminologist John P. Wright wrote that “the biological sciences have made more progress in understanding crime over the last 10 years than the social sciences have in the last 50” (Robinson, 2004, as cited in Wright et al., 2008, p. 326). This statement — perhaps an exaggeration — resonates today as we have yet to see a concerted and systematic approach to incorporating biosocially informed research into practice. By focusing primarily on environmental and psychological factors and excluding known biological and genetic factors that affect behavior, the criminal justice system may be suppressing its ability to fully benefit from its correctional efforts. If criminal justice is to be truly evidence based, then it is time to fully integrate knowledge

and expertise from scholars across disciplines and work together toward the common goal of understanding and promoting desistance.

Although scholars have studied desistance from different perspectives for decades, there is continued debate on how best to conceptualize and operationalize its occurrence. On one hand, desistance can be viewed as a distinctive event that occurs at some point over the course of an individual's life (Maruna, 2001). When viewing desistance this way, researchers measure the absence or cessation of offending. The amount of time required to capture desistance as an “event” and validate that an individual has desisted has no clear-cut boundary among criminologists. However, once achieved, the event is considered “static” or permanent (Maruna, 2001).

On the other hand, a growing number of scholars have suggested that desistance should be viewed as a developmental process (Bushway, Thornberry, & Krohn, 2003). This perspective considers incremental changes in offending behavior and amelioration in associated traits over time as part of a “dynamic” process rather than a static occurrence. Researchers can capture this process by measuring reductions in criminal behavior and improvements in associated risk and protective factors over time. In general, both positions on desistance have implications for how best to move forward in research and practice.

The biosocial perspective is well suited to studying desistance as a developmental process that can occur naturally over time or be encouraged via rehabilitative efforts. The developmental process viewpoint has important implications for practitioners as they implement desistance-encouraging programs and for researchers as they continue to study desistance. Researchers, for example, should take into consideration an individual's developmental period — that is, youth, adolescence, or adulthood — when studying desistance in conjunction with the effects of life events that have the potential to interfere with a normative developmental path.

Likewise, practitioners may want to depart from (or add to) a traditional treatment approach in favor of an enhancement approach to correctional interventions (Chew, Douglas, & Faber, 2018). With an enhancement approach, service providers focus on improvements to the clients' baseline measurements in critical developmental areas.¹ Traditional treatments, on the other hand, are specifically intended to correct certain behaviors (Shniderman & Solberg, 2015). This distinction is critically important: The enhancement approach is a dynamic process addressing specific deficiencies or strengths for continuous improvement, while traditional treatment is designed to achieve a lasting or permanent change in behavior and typically measures the presence or absence of a behavior (for example, recidivism) in a “yes or no” fashion. Again, if practitioners view desistance as a developmental process for most people who engage in crime, then

¹ These indicators may include criminal-justice-related and non-criminal-justice-related outcomes.

enhancement efforts that move beyond “yes or no” questions on recidivism are an important next step toward capturing desistance. In practice, these enhancement efforts can be measured to monitor individual progress in the desistance process over time using both criminal-justice-related and non-criminal-justice-related outcomes.

Contemporary Explanations for Desistance

Some researchers have suggested that nearly all individuals, including those who persistently offend, will desist from crime at some point in their life (Hirschi & Gottfredson, 1983). To demonstrate this contention, scholars point to the well-established relationship between age and crime. Known universally as the “age-crime curve,” this phenomenon demonstrates that a cohort’s peak in offending is during adolescence, with a gradual decline in criminal behavior in adulthood.

Scholars most often study the relationship between aging and criminal behavior during the transitional period from adolescence to adulthood from sociological and psychological perspectives (Laub & Sampson, 2001). Sociological explanations of the decline in crime with age include experiencing common life events, such as finding stable employment or getting married (Laub & Sampson, 2001), engaging in civic responsibilities such as voting and paying taxes (Uggen & Manza, 2004), and possessing positive citizenship values (Farrall & Calverley, 2006).

Psychological explanations, on the other hand, tend to focus on the role that personality characteristics play in the desistance process. For example, personality traits linked to criminal behavior — known as the “big 5” (neuroticism, agreeableness, conscientiousness, openness to new experiences, and extraversion) — tend to develop and mature over time, while other traits, such as thrill seeking and impulsivity, tend to decline in early adulthood (Blonigen, 2010; Farley, 1986). Psychological theory further suggests that individuals may mature out of crime through a process of psychosocial maturation (Cauuffman & Steinberg, 2000). That is, changes in elements of psychosocial maturity from adolescence to young adulthood — namely temperance (e.g., impulse control), perspective (e.g., concern for others, future orientation), and responsibility (e.g., resisting peer influence) — lead to changes in antisocial and criminal behavior (Cauuffman & Steinberg, 2000).

Recent work by Rocque and Welsh (2015) integrates sociological, psychological, and biological factors to better explain the desistance process. Specifically, their perspective integrates five domains of maturation that affect desistance: civic maturation, psychosocial maturation, adult social role maturation, cognitive transformation/identity maturation, and neurocognitive maturation (Rocque & Welsh, 2015). This highlights how sociological and psychological causal mechanisms may co-occur with biological and developmental changes.

Steinberg (2008) proposes understanding the age-crime curve through a dual systems model that connects the development of two neurobiological systems during adolescence — the cognitive control system and the socioemotional system — which are associated with a surge in risky behaviors. Specifically, the dual systems model proposes that the peak in criminal and risky behaviors observed in adolescence is the result of the heightened reactivity of a person's socioemotional system, which seeks excitement, along with his or her immature cognitive control system (e.g., underdeveloped prefrontal cortex). Indeed, an individual's biology, particularly as it relates to brain development, may influence changes in offending behavior from adolescence to adulthood.

Brain Development

Research on brain development and maturation provides even greater insight into the pattern of desistance taking place from adolescence to adulthood (Restak, 2001). From a developmental perspective, desistance may be considered part of a neuromaturation process influenced primarily by normative changes in brain structure and function and the production of hormones and levels of neurotransmitters. These biological changes occur as juveniles mature into adults (Collins, 2004).

For example, testosterone levels vary across one's life. The first spike occurs in males during the second trimester of pregnancy; this surge in testosterone organizes the male brain in preparation for the second surge, which occurs during puberty. Both sexes then experience a peak in testosterone around 18 to 19 years old, with a steady decline throughout the remainder of adulthood. Specifically, testosterone levels begin to decrease in males by about 1% each year after the age of 30, while women begin to experience a decline in testosterone during menopause (Sternbach, 1998).

Testosterone levels are often associated with aggression, behaviors related to social dominance, and reduced levels of fearfulness (van Honk, Peper, & Schutter, 2005; Yildirim & Derksen, 2012). Reviews of the relevant literature provide a great deal of support for the proposed interaction between testosterone, social environments (e.g., abuse, peers, socioeconomic status), and genetic or biological conditions (e.g., hypothalamic-pituitary-adrenal axis, serotonin) on antisocial behaviors across the life-course (Yildirim & Derksen, 2012). Taken together, the increase in testosterone levels during puberty may help explain the onset of criminal behavior in early teenage years. However, the waning levels of testosterone production over time may not be as clearly related to the decline in criminal activity during late adolescence and early adulthood that the age-crime curve suggests. Rather, environmental and genetic conditions may moderate testosterone's influence on criminal behavior and the desistance process (Yildirim & Derksen, 2012).

Age-related changes in levels of excitatory and inhibitory neurotransmitters from adolescence to adulthood also affect antisocial and criminal behaviors. For example, studies have shown that the production of dopamine and norepinephrine begins to decrease in early adulthood (Rogers & Bloom, 1985). These neurotransmitters have excitatory properties² and have been associated with various forms of aggressive and antisocial behavior (Soderstrom et al., 2001). The age-related decline in dopamine system functioning that occurs between youth and middle age may help explain the decline in criminal activity with age. Numerous studies have also demonstrated that average levels of serotonin tend to increase during this transitional period from late teenage years to early adulthood (Collins, 2004). Serotonin is an inhibitory neurotransmitter that regulates both moods and emotions. Lower average levels of serotonin are linked to antisocial behavior and other emotional dysregulation associated with criminal and violent engagement (Moore, Scarpa, & Raine, 2002).

The serotonin metabolite 5-hydroxyindoleacetic acid (5-HIAA) is perhaps the most studied neurochemical as it relates to antisocial behavior. A meta-analysis by Moore, Scarpa, and Raine (2002) found significantly lower levels of 5-HIAA in groups of antisocial individuals compared to individuals in the nonantisocial group. Importantly, the only moderating effect found on this relationship was age, where groups of antisocial individuals younger than age 30 exhibited a larger negative effect size compared to older groups. This age effect — demonstrating that levels of serotonin metabolite 5-HIAA exert a stronger effect on antisocial behavior among younger populations — may further explain age-related declines in crime in young adulthood.

Neurodevelopmental research has also demonstrated that, on average, the human brain takes approximately 25 years to reach full maturity (Giedd et al., 1999). The final region of the brain to fully develop is the prefrontal cortex, which houses the brain's executive functions, including impulse control, attention (focus), working memory, and cognitive flexibility. As executive functions strengthen over time as part of a normative developmental process, most individuals will “mature out” of engaging in antisocial and criminal activities, as illustrated by the age-crime curve. Many studies have found that deficits in executive functions, however, are associated with a host of behavioral problems, including antisocial and criminal behavior (Steinberg, 2008). For example, a meta-analysis of 126 studies by Ogilvie and colleagues (2011) reported a significant and robust relationship between executive dysfunction and antisocial behavior. Studies have also shown a significant relationship between executive dysfunction and repeat offending, suggesting that deficits in executive functioning may also interfere with the desistance process (Hancock, Tapscott, & Hoaken, 2010).

² This means that they increase the likelihood that a neuron will fire an action potential.

As previously noted, executive functioning is highly correlated with an individual's stage of neurological development. Most adolescents follow the normative developmental path, which involves many biological changes from adolescence to adulthood and results in a transition to desistance without much — if any — intervention. Juveniles who do not successfully desist, however, are likely those who have dysfunctional neurobiological systems, either from birth or acquired throughout the life-course as the result of adverse environments or risky lifestyles.

Persons who persistently and violently offend, then, are likely not following a normative developmental path, and their likelihood of desistance may require interventions that are biosocially informed. Thus, as it pertains to the desistance process, it is important for researchers and practitioners to know an individual's biopsychosocial profile³ to distinguish between people whose criminal behavior is defined as “adolescent-limited” and those considered “life-course persistent,” as their risk levels and needs may differ drastically.

Adolescent-Limited and Life-Course-Persistent Individuals

The psychology literature has defined adolescence as a time period marked by the process of maturation that begins at puberty and ends at some point in early adulthood (Sisk & Foster, 2004). This transitional period between youth and adulthood is filled with biological and social environmental changes that affect behaviors, including those deemed antisocial and criminal.

Nearly 30 years ago, Terrie Moffitt (1993) developed the most biologically informed theory of criminal and deviant behavior in the criminological literature when she proposed the existence of two main types of people who offend: “adolescent-limited” and “life-course-persistent.” Specifically, Moffitt categorized those who offend, primarily in nonviolent ways, for relatively short periods of time during the teenage years and then desist from crime in early adulthood as adolescent-limited. Those who offend persistently throughout their life-course, on the other hand, begin to exhibit antisocial and criminal behaviors early in the life-course and continue along this trajectory throughout adulthood.

Although the term life-course-persistent may seem to imply offending throughout the entire life-course, that is rarely the case, as most individuals will eventually desist from crime prior to their death (Hirschi & Gottfredson,

³ A biopsychosocial profile may be obtained by including neuropsychological and physiological tests, as well as biosocially informed questionnaires, to already developed assessments to better inform distinctions between (1) low-risk individuals who are following a normative path based on brain development and (2) individuals who have neurodevelopmental dysfunctions that resulted from genetics or prenatal environments or were acquired throughout the life-course.

1983). It has been argued that Moffitt's (1993) proposed dichotomous view of offending may be an oversimplification of the actual variation seen in antisocial and criminal trajectories, as individuals may not simply fall into one of only two categories (Piquero, 2008; Ezell & Cohen, 2012). Her theoretical propositions, however, are empirically supported in that there are similarities and differences between those who offend at a low rate and desist early and those who offend at a high rate and desist late.

Importantly, Moffitt's (1993) underlying mechanisms for distinguishing these two groups are biologically based. For those who are adolescent-limited, Moffitt (1993) identified the "maturity gap" — she recognized that juveniles are biologically mature, but society has not yet given them the roles and responsibilities of adults. To exert their independence, adolescents may act out and engage in antisocial and criminal behaviors, sometimes mimicking the behaviors of their life-course-persistent peers. These adolescent-limited individuals are said to commit nonviolent forms of delinquency only as teenagers; they desist as opportunities become available to obtain mature status (e.g., graduation, employment, marriage). Moffitt's (1993) work contended that the peak offending seen in the age-crime curve is driven by adolescent-limited individuals.

Research findings on brain development support the concept of adolescent-limited offending. That is, as the brain matures over time, executive functions strengthen and levels of neurotransmitters change. As such, adolescents may "mature out" of crime and delinquency, requiring little to no formal intervention from the criminal justice system. Again, adolescence also roughly coincides with the stage of life where stable employment, marriage, and civic responsibilities become more common. Full-time employment and family responsibilities limit opportunities to engage in delinquency and thereby promote the desistance process from a sociological perspective. For this group of adolescent-limited individuals, then, practitioners should help promote brain maturation by strengthening neuropsychological and executive functioning and minimizing conditions that could create or exacerbate risk (Meijers et al., 2015). The next section will further discuss this desistance-encouraging approach for those who are adolescent-limited.

Life-course-persistent individuals, on the other hand, make up a relatively small proportion of the population — between 5% and 10% of all males (Moffitt, 1993). According to Moffitt (1993), this type engages in a variety of antisocial behaviors throughout the life-course, starting at a young age and continuing through adolescence and into adulthood. Because their antisocial behaviors are relatively stable throughout their life-course, Moffitt (1993) focused on biological and social factors present at the earliest moments in life to explain this pattern of offending. She specified that a child with neuropsychological deficits, who is born to parents who are ill-equipped to handle the child, will be at an increased likelihood of following the life-course-persistent offending

pathway. This explanation is also consistent with brain development research, as numerous studies have demonstrated that not everyone follows a normative brain developmental path (Collins, 2004). As Moffitt (1993) pointed out, there are individual differences in neuropsychological functioning that are detectable early in life. This may occur as the result of genetic or prenatal environmental conditions that may set the stage for future development.

For example, studies have shown that neurological conditions, such as attention-deficit/hyperactivity disorder (ADHD), are significant predictors of life-course-persistent offending (Young, 2007). Individuals diagnosed with ADHD, a childhood developmental disorder, tend to display behaviors within the categories of inattention, hyperactivity, and impulsivity (Young, 2007). Most symptoms decline with age, but about 90% of those diagnosed with ADHD will continue to exhibit symptoms into adulthood (Willoughby, 2003). Individuals with ADHD also tend to exhibit other mental health and behavioral problems, including conduct disorder, antisocial personality disorder, and delinquency (Barkley, Murphy, & Fischer, 2008).

The neurological underpinnings of ADHD center primarily on neuropsychological deficits and underarousal of the autonomic nervous system. For example, electroencephalogram studies, which capture electrical activity between brain cells, have shown slow activity brain waves in children with ADHD (Loo & Barkley, 2005). This pattern of brain wave activity indicates low levels of arousal. Individuals with ADHD are more likely to experience boredom and to seek stimulation and excitement, often through risky and criminal acts (Pratt et al., 2002). This level of underarousal — coupled with brain immaturity — results in impaired inhibitions and heightened excitability, which may be significant risk factors for persistent violent offending. Better understanding of neurological indicators of life-course-persistent offending like ADHD is important, as it influences various aspects of overall well-being and functioning in society and may affect the desistance process.

Although neuropsychological deficits may stem from genetic risk or prenatal environments, they can also be acquired throughout the life-course as the result of adverse environments or risky lifestyles. There are various environmental factors that could contribute to the onset of neuropsychological deficits, including substance use and abuse; traumatic brain injury; trauma, abuse, and neglect (e.g., adverse childhood experiences); and impoverished environments (e.g., low-socioeconomic status neighborhoods; environmental toxins such as lead, asbestos, and contaminated water). When one or more of these environmental factors disrupt brain development, cognitive and behavioral functioning can be seriously altered and lead to antisocial behavior and prolonged involvement in crime (Ogilvie et al., 2011). These acquired neuropsychological deficits may help explain why some adolescents without preexisting neuropsychological deficits, who otherwise should have followed

the adolescent-limited pathway by desisting from crime in early adulthood, continue their involvement in crime through adulthood. Understanding the role that acquired neuropsychological deficits have on the desistance process is an important next step for researchers and practitioners. Although many environmental factors have the potential to affect healthy brain functioning, this paper focuses on three specific conditions: substance abuse, head injuries (e.g., traumatic brain injury), and the impoverished environment of imprisonment.

Substance Abuse

Substance abuse has long been recognized as a significant risk factor for antisocial and criminal behavior. According to the National Center on Addiction and Substance Abuse (2010), approximately 65% of the correctional populations in state and federal facilities meet the criteria for substance use disorder. The growing opioid crisis in America has further exacerbated the problem within the criminal justice system. A growing number of individuals involved in the justice system are using prescription pain killers, heroin, and synthetic opioids (e.g., fentanyl), putting them at an increased risk for recidivism (Belenko, Hiller, & Hamilton, 2013). There is mounting evidence to suggest that the relationship between neuropsychological deficits and substance use is reciprocal. That is, individuals with neuropsychological dysfunctions may be more likely to engage in substance use, and that substance use, in turn, may lead to further neuropsychological deficits (Blume & Marlatt, 2009; Clark, Thatcher, & Tapert, 2008).

Research has clearly demonstrated that the development of neuropsychological deficits is linked to the use and abuse of a variety of substances, including alcohol, cannabis, cocaine, methamphetamines, and opioids (Crowe, Cammisuli, & Stranks, 2020; Hall et al., 2018; Gonzalez et al., 2017; Wollman et al., 2017). This is particularly important for adolescents because considerable brain development occurs during this time period. Substance abuse has the potential to put teens at risk for long-lasting cognitive delays and deficiencies and suppress growth in psychosocial maturity (Chassin et al., 2010). For example, studies have shown that individuals with opioid dependence are more likely to exhibit structural brain abnormalities with neuroimaging studies, further demonstrating that those who use opioids have significantly less white and grey matter in their frontal lobes (Wollman et al., 2017). These abnormalities may help explain the neuropsychological deficits exhibited by individuals who use opioids, namely executive dysfunctions in inhibition, cognitive flexibility, working memory, attention, and problem-solving (Baldacchino et al., 2012).

It is well-documented that individuals who have experienced prolonged substance abuse are more likely to engage in antisocial and criminal behavior (Bennett, Holloway, & Farrington, 2008). In fact, substance abuse is listed as one

of the “big five” criminogenic needs that correctional programs should target to promote desistance (Andrews, Bonta, & Wormith, 2006). Popular programs such as Alcoholics Anonymous and Narcotics Anonymous, however, often apply a “one size fits all” approach and do not address the neuropsychological dysfunctions often associated with substance use and criminal behavior (Woody, 2014). This is important as studies have shown that cognitive improvements can occur after abstaining from substances (Forsberg & Goldman, 1987). The rate of cognitive recovery, however, varies by individual (Goldman, Klisz, & Williams, 1985). For some, cognitive abilities may improve spontaneously or within a short time frame after the detoxification process, but others may need cognitive remediation to restore cognitive capabilities (Forsberg & Goldman, 1987).

As such, prolonged substance use can have a detrimental impact on a person’s brain function while using — and for some, even after abstaining — thereby putting them at risk for continued criminal behavior by acting as a potential barrier to rehabilitative efforts. Additional difficulties associated with substance abuse emerge from studies that have demonstrated that individuals with neuropsychological deficits are less likely to be successful in substance use treatment programs (Blume & Marlatt, 2009). A review of 15 studies examining the desistance process among persons who both commit crime and use drugs further highlights the complex desistance journey for this subpopulation. Specifically, various personal (e.g., cognitive process, individual agency), structural (e.g., treatment, employment), and social (e.g., relationships with family and peers) (Van Roeyen et al., 2017) factors affect the desistance process in those who commit crime and use drugs. To promote desistance, practitioners must first target the substance abuse problem and the various barriers to desistance, followed by concerted enhancement efforts to improve cognitive functioning and behavior. As mentioned, this may be particularly useful for adolescents, as substance use may interfere with their brain maturation and development and have lasting effects if not addressed.

Traumatic Brain Injury

A meta-analytic review of the prevalence of traumatic brain injury in incarcerated groups compared to the general population revealed that more than half of the samples of persons incarcerated reported a history of traumatic brain injury, which is significantly higher than the range of reported traumatic brain injuries (2% to 38.50%) in the general population (Farrer & Hedges, 2011). The relationship between head injury and offending is likely reciprocal, whereby individuals who commit crimes are more likely to have experienced head traumas resulting from physical abuse as children and physical assaults as teens and adults (Widom, 1989). Head injuries can affect cognitive functioning and behavior, leading to antisocial and criminal involvement and increasing the odds of repeat victimization (Daigle & Harris, 2018). Despite the potential reciprocal

nature of the relationship between victimization via head injuries and offending, longitudinal studies have shown that experiencing a head injury is a significant risk factor for the initiation of later involvement in crime (Jackson et al., 2017) and may also interfere with the desistance process (Schwartz, 2019).

This type of neuropsychological deficit may disrupt a person's brain development or functioning and thus affect the desistance process. In fact, studies have shown that individuals who experience severe head traumas are more likely to exhibit neuropsychological dysfunctions in areas of the brain associated with criminal behavior, particularly dysfunctions in executive functioning such as impulse control, attention, working memory, and cognitive flexibility (Dikmen et al., 2009; McAllister et al., 1999; Raskin & Rearick, 1996). If neuropsychological deficits acquired via head trauma are not addressed, they can have long-lasting impacts on cognition and behavior. As such, experiencing a traumatic brain injury not only puts individuals at higher risk for antisocial behavior but also has the potential to act as a barrier to any rehabilitative efforts put forth by the criminal justice system. Given the central role that brain function and structure plays in development and the impact of disruptions to healthy brain development on behavior, it is critical to better understand how sustaining a traumatic brain injury can affect the desistance process, particularly among youth.

Practitioners should be cognizant of any previous traumatic brain injury their clients have suffered as a result of trauma, abuse, sports, accidents, or falls. Although having an official medical diagnosis may be desirable, there are many reasons why someone who has suffered a brain injury may not seek medical treatment (e.g., cost, abuse, unaware of seriousness). As such, practitioners can use self-reported measures to capture these life events. For example, questions about experiencing head and neck injuries with and without losing consciousness, along with associated physical ailments (e.g., nausea, loss of memory), can provide additional information to practitioners about the seriousness of a head injury. Further, it may be beneficial to survey parents, partners, or others on these indicators of head trauma, as research has shown that those who experience head trauma — particularly youth — might not be aware that they have suffered a severe brain injury.

Conditions of Imprisonment

There are certain environmental conditions that can inhibit normative brain development and create cognitive and neurological deficits — and thus, exacerbate criminogenic risk (Meijers et al., 2015). For example, studies have shown that living in impoverished environments, often in urban areas, that are overcrowded and noisy and contain high levels of toxins (e.g., lead) can negatively impact an individual's brain and stress system functioning (Baskin-Sommers & Fonteneau, 2016). Characteristics of impoverished environments

can be extended to correctional settings due to limited social interactions, fear of victimization, actual victimization, poor diet, lack of exercise, poor sleep quality, and the experience of segregation or solitary confinement (for some). These conditions of imprisonment are all known risk factors for impairing cognitive growth and functioning and interfering with psychosocial maturity among adolescents; longer exposures have a more detrimental impact (de Kogel, 2019; Dmitrieva et al., 2012; Haney, 2003).

Baskin-Sommers and Fonteneau (2016) identified three structural factors of imprisonment that can exacerbate or create neuropsychological deficits: (1) overcrowding or forced proximity to others, (2) constant noise, and (3) toxins (e.g., lead, asbestos) in jail and prison environments. These environmental factors have also been found to affect the neural mechanisms for stress processing, leading to stress hormone dysregulation (Ising & Kruppa, 2004; Lederbogen et al., 2011), which, in turn, is associated with antisocial and criminal behavior (Platje et al., 2016; Stadler et al., 2008). These conditions of imprisonment, however, often mirror the environmental conditions of the neighborhood from which a person comes. It is possible, then, that the impact of imprisonment may have differential effects on individuals based on their prior neighborhood and family environmental conditions.

In general, it is important to raise awareness on how imprisonment can negatively affect cognitive functioning (e.g., emotion regulation and recognition) and stress system response, and therefore create or exacerbate risk (Umbach, Raine, & Leonard, 2018). State and federal corrections facilities should minimize conditions that interfere with neuropsychological health and stress system functioning. Studies should also examine the relationship between length of exposure and neurobiological functioning, as individuals with the longest sentences may face the greatest neurological challenges upon release if the correctional system does not address these factors.

Research on how imprisonment affects cognitive functioning could help inform the way the criminal justice system handles those who commit crime, particularly adolescents and young adults. As Lila Kazemian (2021) suggests, it is time for officials to consider alternatives to the adult criminal justice system for those between the ages of 18 and 24. The theoretical basis of widespread implementation of young adult courts is rooted in the developmental and brain literature and informed by the correctional rehabilitation literature. Specifically, research has shown that individuals should be matched to appropriate sanctions and treatments based on their level of risk to increase their chances of desisting from crime (Andrews et al., 1990). Emerging adults between the ages of 18 and 24 who are experiencing a normative developmental path are typically low-risk individuals and should, therefore, receive minimal interventions (Andrews, Bonta, & Hoge, 1990). In fact, studies have shown that placing low-risk individuals in high-intensity environments and programs can have more

detrimental effects than if nothing had been done with them at all (Lowenkamp & Latessa, 2004).

The accumulated brain development research suggests that imprisoning low-risk individuals who are experiencing a normative brain developmental path may impair cognitive functioning and stress system response and inhibit or delay brain development and psychosocial maturity (Baskin-Sommers & Fonteneau, 2016). For those who are low risk, then, particularly adolescents and young adults, imprisonment should be used as a last resort. On the other hand, for high-risk individuals who must be confined, the correctional system should mitigate the negative impact that imprisonment has on cognitive functioning by reducing risk factors often associated with an impoverished environment. This can include improving their diet; increasing the amount of daily exercise and sleep obtained; encouraging social interactions with intimate others through visitations; limiting segregation and solitary confinement; and limiting noise pollution, toxin exposure, and overcrowding in jails and prisons.

Stress System Response

The way an individual perceives and reacts to stress is associated with antisocial behavior and may help explain variation in the desistance process (Platje et al., 2016; Stadler et al., 2008). An individual's stress system response comprises two biological systems: the autonomic nervous system (ANS) and the hypothalamic pituitary axis (HPA) (Chrousos & Gold, 1992). Measures of low heart rate and reduced skin conductance can indirectly capture underarousal of the ANS. Low base levels of physiological arousal are associated with antisocial behavior (Raine, Venables, & Williams, 1990). Two theoretical explanations help us understand why this is so. First, the sensation-seeking hypothesis states that being underaroused is an unpleasant physiological state in which to be and, as a result, individuals seek stimulation to compensate for their low levels of arousal. Second, fearlessness theory states that low arousal levels may indicate a lack of fear or insensitivity to negative outcomes, such as punishment, resulting in an inability to learn from prior experiences (Raine, Venables, & Williams, 1990).

The second biological system implicated in stress system functioning is the HPA, which regulates the release of cortisol when exposed to stressful stimuli. HPA dysfunction results in a less responsive system. Scholars have hypothesized that individuals with lower cortisol response have difficulty interacting with others and responding to stressful situations appropriately. Typically, nervous system and cortisol responses to stress act as warning signs to individuals in adverse environments, leading them to behave more cautiously. People with dysfunctional stress system responses, however, may show fewer inhibitions and react in ways that are deemed antisocial (van Goozen et al., 2007). Understanding an individual's stress system functioning and ability for fear

conditioning may provide additional insight into the likelihood that he or she will successfully desist from crime.

From a correctional rehabilitation standpoint, information on an individual's stress system functioning may help inform his or her capacity to successfully complete enhancement and treatment programs. Rehabilitative efforts that are biologically informed and that are developed and implemented by interdisciplinary teams of researchers and practitioners may be a promising avenue to better facilitate the desistance process. Specifically, correctional rehabilitation can incorporate biosocial research to (1) include biological risk factors in risk assessments, (2) identify and target dynamic biological risks, (3) pinpoint biological barriers to the desistance process, and (4) provide biosocially informed enhancement and treatment options that promote treatment readiness and desistance. To date, however, there has not been a systematic approach to merging biosocial research and practice. Therefore, its true contribution to promoting desistance remains unknown.⁴

Ethical Concerns

There has been documented apprehension to incorporating a biological perspective when discussing persons who commit crime and criminal justice policy and practice (Wright et al., 2008). Further, it has been suggested that any effort to take a biosocial approach to correctional rehabilitation and the desistance process should first identify and address potential ethical concerns (de Kogel, 2019). As such, there are three primary ethical concerns to discuss and, likewise, safeguard against when implementing a biosocially informed approach to correctional rehabilitation.

First, due to criminology's strong sociological tradition, a segment of the criminological community opposes biosocial research, citing the now discredited work by Lombroso (1876). Lombroso proposed a theory of atavism, which suggested that persons who commit crime were evolutionary throwbacks and born that way, leading to today's interpretation of biological determinism. To this day, biosocial critics hold fast that biological theorizing is a "dangerous idea" largely because of the close connections to Nazi justifications of racism, and sexism and eugenics practices in the United States and abroad (Wright & Cullen, 2012). Some critics have gone so far as to label contemporary biosocial criminologists as "neo-Lombrosian." Although there is no denying that biological theorizing has been used in malicious ways in the past — leading to coercive policies and unethical treatment of persons who commit crime, particularly those in vulnerable and disadvantaged groups — that is not what is being

⁴ Costs associated with implementing correctional strategies from a biosocial perspective also remain unknown. Cost-benefit analyses are needed to determine whether the increase in cost, effort, and resources leads to a higher likelihood of achieving the desired outcomes compared to traditional correctional strategies.

proposed today. Acknowledging and learning from this history is critical to moving forward with proposed interventions that are biosocially informed. One way to accomplish this is to include bioethicists as part of the interdisciplinary research-practitioner team and discuss ethical considerations of proposed interventions that seek to integrate a biosocial approach. This would not only benefit the development of programs but also help break down long-standing misconceptions of contemporary biological theorizing in criminal justice research and practice.

Second, there are noted concerns about the distribution of services, particularly in the early stages of implementation when experimental designs are needed to examine the effectiveness of biosocially informed interventions. For instance, in drug trials, there will be individuals in need of treatment who will not receive the treatment if they are participating in an experimental control group. This concern is further exacerbated if the experiment does not, or cannot, follow the random assignment of individuals into treatment and control groups. In other words, researchers and practitioners should make every effort to follow a systematic implementation of a true experimental design, ensuring an equal chance of selection into the treatment group. Additionally, following any experiment, all participants should be given the most effective treatment options. Related to distribution of services, there are also concerns about how practitioners may label individuals. There is the potential to withhold or even deny treatment to individuals if they are labeled as “untreatable” due to practitioners’ faulty understanding of biological influences on behavior (i.e., biological determinism). Educating practitioners on how biosocially informed treatments could benefit their clients in the short and long term will be an important next step in correctional rehabilitation.

Finally — and also related to labelling — is the concern of a self-fulfilling prophecy. Persons who engage in crime and the people with whom they have close relationships may question how much control they have over their own behavior. In this case, individuals may self-identify as being “bad” and feel hopeless about their future due to their biological risk. Moreover, people who interact with those identified as having biological risk factors may scrutinize all of their behaviors, however minimal. This is particularly important in correctional rehabilitation, as research has found that the concept of identity and self plays a significant role in desistance. According to this perspective, individuals will act in accordance with their view of themselves and their perceived identity. Therefore, it is necessary to educate those who commit crime and the general public on the malleable role that biology plays in behavior.

Taken together, these ethical concerns should not limit the incorporation of biosocial research into the rehabilitative process. Instead, bioethicists, criminologists, and practitioners should recognize and minimize these concerns through conversation (de Kogel, 2019).

Correctional Rehabilitation From a Biosocial Perspective

Current correctional rehabilitative practices mainly adopt a risk-need-responsivity (RNR) model that focuses on demographic, sociological, and psychological risk factors and excludes much of the biosocial literature (Newsome & Cullen, 2017). The RNR model is based on the theoretical foundation outlined in the psychology of criminal conduct literature, which recognizes individual differences in antisocial behaviors but falls short in providing a comprehensive account of the biological influences that could explain such differences.

When the RNR model was developed over 30 years ago, research in the field of criminal justice was heavily rooted in sociological traditions. The area of biopsychosocial criminology was only beginning to receive scholarly attention. Since that time, the biosocial perspective has become more widely accepted in the field, but its application in correctional settings remains underdeveloped.

Moving forward, researchers and correctional practitioners should expand the RNR model to integrate the biosocial perspective and measure its effectiveness at promoting desistance from crime (see Newsome & Cullen, 2017). They can also adopt a strengths-based approach that goes beyond improving deficits to focus on an individual's strengths that encourage the desistance process.

Risk Assessment — Creating a Biopsychosocial Profile

Despite the volumes of research that have conclusively demonstrated that both genetic and biological factors affect nearly all human behaviors (Polderman et al., 2015), including criminal and antisocial behavior (Rhee & Waldman, 2002), the development of risk assessments that are biologically informed remains absent.

Risk assessments are an important tool used to match individuals with appropriate levels of treatment, determine the likelihood of recidivism, and assign treatment regimens (Latessa & Lovins, 2010). Developing risk assessment tools that integrate biological risk factors is an important next step in correctional rehabilitation, as it has the potential to increase the efficiencies of risk prediction. It will also help inform practitioners' choices via biopsychosocial profiles, which would provide better insight on where, when, and how to provide interventions and when to abstain. Currently, the biosocial literature suggests including measurements of the following biological indicator categories into risk assessments: brain function and structure, neuropsychological deficits (e.g., executive functions), hormone levels (e.g., cortisol, testosterone), neurotransmitter levels (e.g., serotonin, dopamine), and autonomic nervous system functioning (e.g., heart rate, skin conductance), as well as genetics more broadly.

Genetic risk is perhaps the most controversial of the biological factors to incorporate when predicting the onset, maintenance, and desistance of antisocial behavior. Although some court cases have incorporated genetic information as mitigating factors (e.g., monoamine oxidase A (MAO-A), an enzyme encoded by the MAOA gene), correctional rehabilitative efforts have yet to fully integrate the role that genes play in explaining behavior, in part due to the perceived ethical concerns mentioned above. The long-standing misnomer that biology is destiny has been discredited through years of epigenetic research, which demonstrates that environmental conditions greatly influence how genes are functionally expressed (Champagne, 2010). In other words, someone may be at genetic risk for certain maladaptive behaviors, but environmental conditions will affect the likelihood that he or she exhibits those behaviors.

At this time, findings from contemporary molecular genetic research should be used with caution when developing risk assessments. Criminal behavior is thought to be a polygenic phenotype, meaning that hundreds, or perhaps thousands, of genetic polymorphisms can combine in additive or multiplicative ways to influence antisocial behaviors. Thus, specific genetic variants tend to exert (very) small direct effects on behavior, and the research is mixed as to when and how specific genes affect antisocial and criminal behavior. This is largely due to the complexity of genetic expression in various environmental conditions, as well as the combination of genetic polymorphisms with environmental factors that are too numerous to pinpoint for risk assessments at this time. Rather, knowing an individual's genetic risk on key genetic variants may be better used to determine the environmental conditions that could best promote desistance, a topic of discussion further detailed below.

For now — and as a first step to integrating biosocial research into practice — the goal should be to develop and employ biologically informed risk assessment instruments that are noninvasive and relatively inexpensive for measuring well-established biological risks, namely neuropsychological deficits and the characteristics of an individual's stress system response. This will require substantial collaboration between researchers and practitioners to advance knowledge of “what works” in applied desistance research that is biosocially informed. For example, they should make a concerted effort to include indicators geared toward distinguishing between (1) adolescent-limited individuals following a normative developmental path, (2) individuals who have acquired a neuropsychological deficit as the result of adverse environments or risky lifestyles throughout their life-course, and (3) life-course-persistent individuals who display neuropsychological deficits from an early age and fall at the extreme end of the distribution on direct and indirect measures of cognitive and executive functioning. The desistance process will very likely differ based on a person's biopsychosocial profile, thereby necessitating a more individualized approach to intervention efforts.

Biopsychosocial risk assessments developed by interdisciplinary teams should enable practitioners to identify specific biological deficits, better assess individual risk levels, and more effectively match individuals to programs. This individualized approach may start by including neuropsychological and physiological tests and biosocially informed questionnaires to already developed risk assessments. In turn, more efficiently aligned treatment assignments based on an individual's biopsychosocial profile will likely facilitate improved behavior, thereby increasing the likelihood of desistance from crime.

Needs Assessment — Target Neuropsychological Deficits

The needs principle states that rehabilitative efforts should focus on dynamic risk factors to reduce recidivism (Andrews & Bonta, 2010). The distinction between dynamic and static risk factors is particularly important when discussing biological risk, as there is a tendency to argue that biology is a static risk factor. Again, this is simply not the case — genetic and biological risk should be considered dynamic and contingent upon environments. Studies have also shown that participation in cognitive behavioral therapy (CBT) can change an individual's neurobiology; this, in turn, leads to changes in behavior, providing further evidence for the malleability of biological risk factors (Cornet et al., 2014). Targeting specific biological needs can potentially promote desistance, particularly when there is an understanding of the individual's stage of development. The traditional “big five” criminogenic needs are antisocial personality, antisocial attitudes, antisocial values, antisocial associates, and substance abuse (Andrews, Bonta, & Wormith, 2006). From a biosocial perspective, however, the “big five” could be complemented by the “critical two,” namely neuropsychological functioning and stress system response. Programs that specifically target these two dynamic criminogenic biological needs will likely be more successful in reducing recidivism (Cornet et al., 2014).

As mentioned, neuropsychological deficits are robust and consistent predictors of life-course-persistent offending (Ogilvie et al., 2011). They have been linked to dysfunction in brain function and structure that emerges early as the result of genetics or prenatal environments, or they can be acquired throughout the life-course based on lifestyle and exposure to adverse environments. We need to better understand the impact that these early and acquired neuropsychological deficits have on the desistance process. Examples of executive and cognitive dysfunctions correlated with criminal behavior include inhibition, working memory, attention, and cognitive flexibility, as well as impulsivity, deficiencies in social cognition and problem solving, impulsive decision-making, absence of goal-setting behavior, and poor interpersonal skills (Shniderman & Solberg, 2015).

Targeting cognition and behavior via rehabilitative efforts that are biosocially informed is multifaceted. Interdisciplinary teams of researchers and practitioners can address neuropsychological deficits in several noninvasive and relatively inexpensive ways, including through cognitive remediation, mindfulness training, supplements to address nutritional deficits, and medications (Bootsman, 2019). These mechanisms can also enhance treatment readiness by improving or restoring individuals' neuropsychological capabilities. In many cases, this will be required for more traditional intervention programs to be successful (e.g., CBT).

Cognitive Remediation

Cognitive remediation is a therapeutic training program that, when employed regularly, can improve brain functioning. For example, a review of the research on the effectiveness of cognitive remediation strategies for those who have suffered traumatic brain injury has shown that attention and self-regulation retraining is most effective when coupled with performance feedback and reinforcement (Benedict, 1989).

In general, this type of neuropsychological (re)training should focus on identifying and targeting specific neuropsychological deficits, primarily those associated with executive functioning and emotion regulation (Baskin-Sommers & Fonteneau, 2016). As such, the rehabilitative and desistance goals of cognitive remediation are to help individuals develop or improve specific cognitive skills that are associated with behavioral problems. Although the concept of cognitive remediation remains popular among practicing psychologists, its application in correctional settings has been primarily through cognitive behavioral programs, such as Aggression Replacement Training (Goldstein, Glick, & Gibb, 1998) and Reasoning and Rehabilitation (Ross & Fabiano, 1985). New initiatives should take an individualized approach to cognitive remediation by targeting specific neuropsychological deficits.

One way to achieve this goal is to update current needs assessments to include neuropsychological dysfunctions as a dynamic criminogenic need to target via cognitive remediation trainings. Researchers should measure and study the cognitive skills being acquired or improved upon during trainings to establish their generalizability to other environments and maximize training effectiveness. There is preliminary evidence to suggest that neuropsychological trainings, such as Attention to Context training and Affective Cognitive Control training, are effective when properly matched to individuals (Baskin-Sommers, Curtin, & Newman, 2015). The type of cognitive training needed should depend on the individual's unique neuropsychological needs, underlying behavioral problems, and stage of development.

Further, the mode of delivery for neuropsychological training can be individualized — from traditional individual and group sessions to more advanced computer-based training. The mode of delivery may affect the intervention's effectiveness based on certain factors and conditions experienced by the individual receiving the training. The cognitive training program should also increase in difficulty across sessions to promote neural changes that will translate to behavioral changes that transcend environments (Poldrack & Gabrieli, 2001). It will be critical to develop individualized cognitive remediation plans and study how cognitive training programs and mode of delivery (e.g., traditional, video games, serious gaming) affect the desistance process among a correctional population.

Mindfulness Training

Mindfulness training teaches individuals to focus on the present moment rather than on the past or future. Learning to be mindful enables a person to identify thoughts, emotions, and physiological feelings in an objective way, which builds capacity to counteract the effects of a negative environment (Baer, 2003). That is, individuals are trained on how to become more attentive to their own thoughts and emotions without acting on them, thereby promoting increased self-regulation (Baer, 2003). Studies have shown that mindfulness training can improve self-awareness, attention, emotional regulation, and self-regulation (Auty, Cope, & Liebling, 2017). For example, a meta-analysis conducted by Auty, Cope, and Liebling (2017) found that yoga and mindfulness meditation programs in prison had positive effects on the psychological well-being and behavioral functioning of those incarcerated.

Neuropsychological studies have shown that mindfulness training can alter or improve brain functions in regions responsible for emotion and executive functions (Tang, Hölzel, & Posner, 2015). For example, mindfulness training has demonstrated the ability to enhance prefrontal cortex functioning, particularly in the anterior cingulate cortex and the orbitofrontal cortex areas of the brain. Research on mindfulness has also identified improvement in amygdala functioning as well as enhanced connectivity across the hemispheres of the brain (Tang, Hölzel, & Posner, 2015). Further, it has been suggested that mindfulness training can influence heart rate and improve stress system response when exposed to adverse environments (de Kogel, 2019). That is, mindfulness training allows individuals — who begin to experience physiological responses to an environmental trigger — to dissociate themselves from their feelings and thoughts and avoid reacting in harmful ways. In the long run, this has the potential to change the way people view themselves as they learn to control their emotions and behaviors.

The concepts of identity and self along with cognitive transformations are important factors to consider when discussing cognitive explanations of

desistance from crime. This perspective emphasizes the importance of self-views and identity as ways to explain desistance. Theories of desistance from this framework suggest that individuals will act in accordance with their view of themselves and their perceived identity (Giordano, Cernkovich, & Rudolph, 2002; Paternoster & Bushway, 2009). For example, Giordano and colleagues (2002) identified four types of interrelated cognitive transformations that must occur to promote behavioral change: (1) a willingness to change, (2) “hooks for change” (i.e., prosocial opportunities for change), (3) changes in the way people view themselves and their self-identity, and (4) changes in antisocial attitudes. Paternoster and Bushway (2009) also provided an identity-based theory of desistance in their description of the “feared self.” They suggested that shedding a self-identity grounded in criminal behavior in favor of a more conforming self-identity is a key factor in changing behavior. Both approaches hold that desistance is likely to occur as the result of changes in the way individuals think of themselves and that changing an individual’s thought process and viewpoint can lead to changes in behavior.

From a biosocial perspective, individuals’ cognitive abilities, which may be dependent on their current stage of development and life experiences, can shape their view of themselves and their identity. For example, for those following a normative brain developmental path, desistance may be considered part of a natural maturation process influenced primarily by normative changes in brain structure and function from adolescence to early adulthood (Collins, 2004). During this time period, individuals also develop and redefine their self-image. Mindfulness training may help increase self-awareness and encourage cognitive maturation by changing their self-view and identity from a “bad kid” to a “successful adult” as they mature and are exposed to new opportunities to further promote desistance. For those with early or acquired neuropsychological deficits, however, their cognitive deficiencies may interfere with their ability to change their perspective of themselves (as well as the prosocial opportunities available to them). Mindfulness training, then, would help this group strengthen the areas of the brain responsible for attention and emotions, teaching them how to objectively evaluate their feelings and raise their level of self-awareness in an effort to change behavior and the way they perceive themselves over time.

Adding mindfulness training to individual treatment plans that are biosocially informed can help promote the desistance process. Programs such as Mindfulness-Based Cognitive Therapy have incorporated mindfulness training into their CBT (Segal et al., 2002), as have intervention efforts that focus on stress reduction, such as Mindfulness-Based Stress Reduction (Samuelson et al., 2007). Adding mindfulness training to correctional strategies seems promising, as studies have shown that increased attention to thoughts, feelings, and bodily sensations can lead individuals to change behaviors (Dafoe & Stermac, 2013). The next step is to link mindfulness training with identity and self, along with

cognitive transformations, by further encouraging individuals to change the way they perceive themselves.

Nutritional Supplements

The health sciences field has documented and established the relationship between diet, nutrition, and brain health and development (Wahl et al., 2016). There is also evidence of how important nutrition is for brain health as individuals age beyond physical and brain maturity. Thus, another practical approach to improving neuropsychological functioning is through diet and nutritional supplements. Omega-3 fatty acids and micronutrients (e.g., zinc, magnesium), for example, play an important role in brain development and cognitive functioning (Parletta, Milte, & Meyer, 2013). Research has shown that deficiencies in omega-3 fatty acids during critical stages of development may result in fewer serotonergic neurons and synapses and lower levels of serotonin, which are linked to impulsive and antisocial behaviors (Patrick & Ames, 2015).

Research on the diets of persons who are incarcerated and the food served in correctional facilities is somewhat limited. One study by Cook and colleagues (2015) reviewed a 28-day cycle menu in a large county jail in Georgia. They found that those incarcerated received less than two-thirds of the recommended amounts of magnesium; potassium; and vitamins A, D, and E; and more than the recommended amounts of calories (for women), sodium, saturated fats, and cholesterol (Cook et al., 2015). Grains were also overrepresented on the menu, while vegetables, fruits, and dairy were underrepresented, thereby affecting the total nutrient content of their diet and overall health and well-being (Cook et al., 2015).

Emerging research that examined the effects of omega-3 supplements and other vitamins and minerals on adults in prison found that those who were given supplements committed significantly fewer offenses than control groups (Gesch et al., 2002; Zaalberg et al., 2010). These findings suggest that correctional facilities should consider obtaining baseline nutrient profiles⁵ for persons who are incarcerated and providing omega-3 supplements and other vitamins and minerals to their daily diet when needed. Nutritional profiles may also provide information about the capacity to participate in neuropsychological training programs, as people may not be able to fully benefit from treatment if they have nutritional deficiencies. Initiatives that identify deficiencies through baseline levels of nutrients and create a nutritional supplement plan to help improve brain functioning — which could lead to changes in cognition and behavior, thus promoting the desistance process — are needed.

⁵ This would require obtaining blood samples and could cost up to several hundred dollars per sample. As such, a practical first step may be narrowing testing to specific nutrients known to influence antisocial behaviors when deficient.

Medication

Antisocial behavior has also been linked to altered neurotransmitter and enzyme levels in the brain (e.g., dopamine, serotonin, MAO-A) (see Duke et al., 2013). A disruption in brain functioning can occur when neurotransmitter levels (or enzyme activity) are too high or too low. In turn, this can result in abnormal cognition and emotions, behavioral problems, and mental health conditions.

Several randomized controlled trials have shown that psychopharmacological treatments effectively reduce impulsive and aggressive behaviors (Butler et al., 2010; Pappadopulos et al., 2006). For example, selective serotonin reuptake inhibitors increased glucose metabolism in regions of the brain that had been identified as deficient in antisocial and violent populations (New et al., 2004).

Mental health conditions and substance use problems can interfere with an individual's ability to respond to treatment and desist from crime. For example, ADHD, a neurological condition characterized by underarousal and neuropsychological deficits, is a significant predictor of life-course-persistent offending, with symptoms emerging in early childhood and continuing through adulthood. Individuals diagnosed with ADHD have seen improvement in behaviors with medications such as methylphenidate (Ritalin) and other central nervous system stimulants (Connor et al., 2002; Platje et al., 2016). Correctional efforts to promote desistance would benefit from addressing underlying neurological conditions before implementing other treatment options.

Individuals with substance use problems, such as opioid addiction, may also benefit from medications, including methadone, buprenorphine, and naltrexone (Moore et al., 2019). Currently, the criminal justice system does not take a comprehensive or systematic approach to providing medical care or aftercare for substance-using individuals. Rather, facilities typically use an abstinence-only approach or offer Alcoholics Anonymous/Narcotics Anonymous-type programming. Research has shown that medications reduce opioid use, improve cognitive functioning, and reduce recidivism (Moore et al., 2019). As such, practitioners may want to first provide medication-assisted treatment options⁶ before enrolling individuals in cognitive-based programming. In other words, an individualized approach to treating underlying mental illness and substance use problems via medication could enhance treatment readiness and the desistance process by restoring or improving neuropsychological and brain functioning.

⁶ There is an associated risk of potentially creating an underground market when incorporating medical treatments for substance abuse in a correctional facility (e.g., replacement drugs such as Suboxone), which could, in turn, lead to violence. Implementation of medical treatments would have to be carefully monitored.

Needs Assessment — Target Stress System Response

From a correctional rehabilitation standpoint, having information on individuals' stress system functioning and ability for fear conditioning may provide insights into their capacity for successfully completing treatment and desisting from criminal behavior. Incorporating baseline measures of heart rate, skin conductance, and stress hormones and enzymes (e.g. cortisol, alpha-amylase)⁷ could better inform risk assessments and help match individuals with specific rehabilitation programs that are best suited to their needs. For example, studies have found that people with lower resting heart rate, reduced skin conductance, and lower levels of cortisol showed less improvement after participating in CBT (Cornet et al., 2014). Individuals with higher arousal levels, on the other hand, were more likely to benefit from treatment.

Furthermore, ANS functioning may differentiate antisocial types (e.g., psychopathy, impulsive-aggressive, conduct disorder), which could help inform the type of treatment assigned (Bootsman, 2019). For example, those who are hyperaroused and display more reactive aggression may benefit from treatment focused on response inhibition and anger management. Conversely, correctional options that include elements of negative reinforcement may not be effective for individuals with dysfunctional stress systems, as they tend to be insensitive to the negative outcomes of their behavior (van Goozen & Fairchild, 2008).

Physiological tests can measure stress hormones and enzymes (e.g., cortisol, alpha-amylase) through saliva and hair samples, and neurological tests can use equipment to measure heart rate and skin conductance (e.g., Neurolog). Wearables⁸ that monitor heart rate variability and skin conductance can also be used throughout the day to provide biofeedback to individuals. New initiatives could promote a more active role in one's own treatment, training individuals on how to recognize physiological cues that correlate with antisocial behavior (e.g., increased heart rate or skin conductance) and regulate stress.

Responsivity — General and Specific Biological Considerations

Responsivity refers to how well individuals receive a type of intervention and the corresponding potential for positive results. This broad concept includes both general and specific components, labeled as responsivity factors. General responsivity refers to the idea that programs, such as CBT, will be most effective when they are responsive to changing behaviors and factors known to affect recidivism (Andrews & Bonta, 2010).

⁷ The typical cost of equipment needed to monitor heart rate and skin conductance (e.g., Neurolog) is about \$150. The cost of collecting and processing hormone data is about \$20 to \$25 per person.

⁸ These types of wearable devices typically cost about \$120 each.

Programs based on CBT were developed in the 1980s, a time when psychological perspectives of antisocial behavior dominated the correctional literature. CBT is used worldwide with varying levels of effectiveness (Smith, Gendreau, & Swartz, 2009; Harper & Chitty, 2005). Based on both social learning and cognitive theories, CBT focuses on the initiation and maintenance of antisocial behaviors over time as a result of the learning process from antisocial peers and identifies what and how individuals think, which affects their behavior. The goal is to change their thoughts and behaviors through prosocial modeling, practice, and reward by teaching the participant how to identify “triggers” that lead to antisocial and criminal behaviors; change their criminogenic thinking patterns; and improve their social, coping, and problem-solving skills. The variation in CBT’s effectiveness may be a function of an individual’s level of neuropsychological functioning and stress system response.

CBT’s general effectiveness at reducing antisocial behavior has been attributed to its utility in altering brain structure and function in the regions of the brain responsible for social, coping, and problem-solving skills (Vaske, Galyean, & Cullen, 2011). These regions include the medial prefrontal cortex, the dorsolateral prefrontal cortex, the dorsomedial prefrontal cortex, the ventromedial prefrontal cortex, the orbitofrontal cortex, the cingulate cortex, the insula, and the temporo-parietal junction. Cornet and colleagues (2014) empirically reviewed Vaske and colleagues’ (2011) assertion that behavioral and cognitive interventions will cause changes in one’s biology and neuropsychology and that changes in one’s biology and neuropsychology from treatment will correspond to behavioral changes. The authors found that “the 11 studies included reveal evidence that specific neurobiological measures including hormones, brain activity, and heart rate variability, show some change in response to intervention with some studies clearly linking neurobiological changes to behavioral improvement” (Cornet et al., 2014, p. 20). This has important implications for the way we think about and implement CBT in correctional settings.

CBT is arguably the most effective option for promoting desistance from a biosocial perspective and should continue to be implemented widely. New initiatives, however, should provide enhancement options prior to or in conjunction with CBT to further promote desistance. As previously stated, these enhancement efforts should strengthen or restore neuropsychological deficits and improve an individual’s stress system response. This could include cognitive remediation, mindfulness training, nutritional supplements, or medications.

Specific responsivity, on the other hand, focuses on individual factors that may act as barriers to treatment success. Specific responsivity factors are not necessarily the same as risk and needs factors, but there can be some overlap. For example, molecular genetics research has identified several genetic variants as risk factors for antisocial behavior, particularly genetic variants of neurotransmitter-related genes affecting levels of serotonin and dopamine

(Raine, 2014). Although correctional practice may not want to include genetic risk for risk assessment purposes at this time, genes can be recognized as a specific responsivity factor to better understand variation in program effectiveness.

There are two theoretical perspectives on how genes and environments interact to influence behaviors. First, the “dual risk” model suggests that individuals who are at genetic risk are more likely to display antisocial behaviors when they are exposed to high-risk environments. As an example, individuals who are exposed to severe forms of child maltreatment (i.e., environmental risk) and who are carriers of the low-activity MAOA allele (i.e., genetic risk) are significantly more likely to exhibit antisocial and criminal behaviors as a result of the dual risk (Caspi et al., 2002).

The alternative perspective, known as “differential susceptibility” theory, suggests that genetic variants may lead to increased or decreased sensitivity to environmental influences (Belsky, Bakermans-Kranenburg, & van IJzendoorn, 2007). This framework argues that some genetic variants have a certain level of plasticity and malleability in that both positive and negative environments can influence behavior in their respective directions for carriers of the malleable genetic variant. For example, if someone with a malleable genetic variant was exposed to an adverse environment, he or she would be at an increased risk of exhibiting negative behavioral outcomes. Conversely, if that same individual were exposed to a supportive environment, he or she would be more likely to exhibit positive behavioral outcomes. Individuals who do not possess the malleable genetic variant will be less likely to be influenced by either positive or negative environmental conditions. As a result, knowing an individual’s genetic profile for certain key genetic variants could help determine whether exposure to treatment could have a positive outcome on desistance for those with malleable genes.

A few studies have used randomized controlled trials to determine whether certain treatment programs are more effective for certain individuals based on their genetic makeup (Bakersman-Kranenburg et al., 2008). Most of these studies to date, however, have focused on young children and adolescents (Brody et al., 2009, 2014). For example, the effectiveness of the Strong African American Families Program differed based on participant genotype and appeared to be most effective at reducing problem behaviors for those who carry risk or malleable alleles, specifically at least one copy of the short allele of 5-HTTLPR (Brody et al., 2009) or one or more 7-repeat allele at DRD4 (Beach et al., 2010; Brody et al., 2014). This suggests that people may respond differently to treatment based on their genes and that treatments may be most effective for those at highest genetic risk. As such, correctional practitioners may want to consider an individual’s genetic risk profile as a responsivity factor to better understand variability in program effectiveness.

As mentioned, correctional researchers and practitioners may want to consider neuropsychological dysfunctions and stress system response when assessing the effectiveness of treatment programs, particularly programs that focus on improving cognition and reducing stress. Addressing these two critical biological risk factors via interventions — such as cognitive remediation, mindfulness training, nutritional supplements, and medications — may help enhance treatment readiness and promote cognitive and behavioral change leading to desistance.

Strengths-Based Approach

In addition to integrating a biosocial framework in the RNR model, practitioners should consider adopting a strengths-based approach to promoting desistance. It has been well documented that genetic, biological, and environmental factors, including prosocial behaviors, influence nearly all human behaviors (Polderman et al., 2015). Although understanding an individual's biopsychosocial profile has the potential to improve the effectiveness of the RNR model, its application continues to place great emphasis on individual deficits (e.g., neuropsychological deficits and stress system dysfunction). A complementary line of research and correctional practice that focuses on desistance from crime following a strengths-based approach (Ward & Brown, 2004) is greatly needed. In short, it is time to move beyond recidivism-focused approaches that use reoffending as the sole metric of success or failure. Desistance is a process, and enhancement efforts seek to improve various aspects of one's life. As such, interventions should focus on both diminishing risk factors and improving protective factors, such that success can be measured on a continuum rather than a dichotomy.

The Good Lives Model of Offender Rehabilitation (GLM), for example, is a strengths-based rehabilitative approach that aligns with the biosocial framework (Ward, 2002). The GLM complements the RNR model by focusing not only on risk reduction but also on "goods" promotion (e.g., individuals' core values and life priorities). It incorporates the principles outlined in the RNR model and addresses a person's motivation levels in the rehabilitative process (Ward & Maruna, 2007). This comprehensive framework also encourages practitioners to identify the internal factors and external resources needed to promote desistance. Specifically, the GLM considers the person's interests, abilities, and life goals and allows practitioners to develop individualized intervention and meaningful treatment plans and address the criminogenic needs that may interfere with obtaining these "goods." The empirical studies conducted to date have shown that the GLM successfully enhances participant engagement and improves behaviors (Willis & Ward, 2013).

Conclusion

The integration of biosocial research and the application of a biosocial lens have the potential to provide a more comprehensive account of the factors that influence the desistance process. The biosocial lens relies on the inclusion of brain development, neuropsychological functioning, and stress system response research that has specific implications for human behavior.

This paper recommended ways to integrate the biosocial perspective into the study of desistance from a correctional standpoint. Neuropsychological and physiological tests and biosocially informed questionnaires can better identify (1) low-risk individuals who are following a normative path based on brain development, (2) individuals who have neurodevelopmental dysfunctions as a result of genetics or prenatal environments or that have been acquired throughout the life-course, and (3) types and sources of neurobiological limitations and their impact on the desistance process. This information would better inform risk, needs, and potential barriers to the desistance process that may vary based on an individual's stage of development.

This paper calls for refining assessment practices, procedures, and facilities management in correctional settings to recognize the importance of biological risk factors. Interdisciplinary teams of researchers and practitioners could administer low-cost, high-quality, and noninvasive measures of neuropsychological deficits and individuals' stress system response. This will help inform enhancement and treatment options that are biosocially and developmentally informed to promote desistance.

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Chapter 3

The Impact of Incarceration on the Desistance Process Among Individuals Who Chronically Engage in Criminal Activity

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Introduction

A large body of research documents how common incarceration now is for Americans (Bonczar, 2003; Enns et al., 2019; Pettit & Western, 2004) and considers how contact with the prison and jail systems shapes the course of a person's life (Kirk & Wakefield, 2018; Wakefield & Uggen, 2010; Western, 2007). This research focuses heavily on the way in which incarceration affects an individual's labor market outcomes (Pager, 2003; Western, 2002), family life (Braman, 2004; Comfort, 2008; Turney & Wildeman, 2013), and mental and physical health (Wildeman & Wang, 2017).

A smaller body of research also considers how incarceration shapes a person's criminal activity and recidivism, often measured as reincarceration (Drago, Galbiati, & Vertova, 2009; Nagin, Cullen, & Jonson, 2009). Using a variety of identification strategies, the research generally suggests that being assigned to a

higher-security facility rather than a lower-security facility increases the level of antisocial behavior both during imprisonment and after release (Drago, Galbiati, & Vertova, 2009). The research also indicates that being given a custodial sanction — often a short prison or jail stay — instead of a noncustodial sanction — often being placed on probation or sentenced to house arrest — increases the risk of antisocial and criminal behavior (Nagin, Cullen, & Jonson, 2009).

Unfortunately, research in this area has at least four core limitations that are relevant for policy, practice, and research. First, most research on the criminal activity of individuals who were formerly incarcerated focuses narrowly on crime rather than on the desistance process (Maruna, 2001; Rocque, 2021). This is a major gap because the lack of new criminal activity or criminal justice contact is less informative than a broader conception of desistance, which focuses on moving away from criminal activity and antisocial behavior and moving toward prosocial engagement. Second, virtually none of the research considers how the conditions of confinement in prisons and jails may moderate the effects of imprisonment on both life-course outcomes and the desistance process. This is a key oversight with special importance for practitioners because it means that we have very little insight into how the vast differences in conditions of confinement (Wildeman, Fitzpatrick, & Goldman, 2018) shape the outcomes of individuals who were formerly incarcerated. Third, much of the research on desistance does not consider the experiences of contemporary cohorts, who are highly diverse, experience incarceration at high rates, and have many of the traditional pathways to desistance blocked. Instead, it examines cohorts who came of age in the 1950s or earlier. Finally — and maybe most importantly — virtually all of the research on how imprisonment shapes the life-course focuses on the average effects of prison and jail incarceration. This is problematic because it means that previous research has shed little light on how imprisonment affects the life-course outcomes of individuals who are chronically engaged in criminal activity.

The goal of this paper is to consider how imprisonment shapes the desistance process for individuals who are chronically criminally active and to discuss the implications for policy, practice, and research. The paper focuses on the effects of both a long prison sentence relative to a shorter prison sentence and a short prison sentence relative to either receiving a noncustodial sanction or evading criminal justice system contact. Many individuals who are chronically active in crime will have had significant criminal justice contact throughout the course of their lives, and relatively few will have avoided criminal justice contact completely (Farrington & West, 1993). The paper assumes, then, that receiving no criminal justice sanctions is an uncommon outcome for this group; thus, it merits less attention. In addition to providing an in-depth discussion of the fact and duration of imprisonment on the desistance process for individuals who chronically engage in criminal activity, the paper also addresses how essential conditions of confinement likely moderate these effects.

The paper is divided into three sections. The first section reviews existing research on how prison and jail incarceration affect crime and other core life-course outcomes that could be tied to the desistance process. When looking at research on the effects of imprisonment on crime, special attention is paid to studies exploiting quasi-experimental variation in the fact, duration, and severity of prison and jail incarceration, with more emphasis on imprisonment. When examining research on the effects of incarceration on other life-course outcomes, the paper focuses both on obstacles to causal inference in that area and on the fact that many of these studies are more informative about the effects of jail incarceration and short prison incarceration than long prison incarceration.

The second section summarizes some of the problems with current research on how prison and jail incarceration (relative to noncustodial sanctions) affect the desistance process. Specifically, it focuses on problems with measurement of the desistance process, inattention to conditions of confinement, reliance on samples that do not represent contemporary society, and, most importantly, relative inattention in the literature to individuals who chronically offend. This section also discusses the likely effects of incarceration on these individuals.

The paper closes by discussing the implications of these findings for policy, practice, and research. More attention is paid to the discussion of research, as the research in this area is in special need of development.

Effects of Incarceration on Crime and Life-Course Outcomes

This section discusses the various ways in which prison and jail incarceration could shape desistance from crime. It first looks at research on the effects of incarceration on crime and highlights how longer prison stays affect crime relative to shorter stays, how harsher conditions of confinement affect crime relative to less punitive conditions, and how noncustodial sanctions affect crime relative to custodial sanctions. It then examines how prison and jail incarceration — often, but not always, shorter stints in prison and jail — shape an individual's labor market prospects, family life, housing stability, and mental health. In so doing, it provides indirect evidence on how incarceration affects some of the features of life observed during the desistance process (Laub & Sampson, 2003; Maruna, 2001).

Effects of Incarceration on Crime

Although a substantial body of criminological research focuses on the effects of imprisonment on offending, two areas seem to especially merit attention here: (1) the fact of imprisonment, including both custodial sanctions relative

to noncustodial sanctions and length of imprisonment,¹ contingent upon being imprisoned, and (2) the nature of confinement.

Fact of Imprisonment

There are two ways to estimate the fact of imprisonment's effects on crime. First, one could compare the subsequent levels of criminal activity of individuals convicted of similar crimes who are sentenced to noncustodial sanctions (e.g., probation, house arrest) and custodial sanctions (e.g., prison incarceration, jail incarceration). Second, one could compare the subsequent levels of criminal activity of individuals convicted of similar crimes who are given long and short sentences. A 2009 meta-analysis by Nagin and colleagues (2009) considered both of these possibilities and suggested null or mildly criminogenic effects of being sentenced to prison relative to receiving a noncustodial sanction and length of confinement, contingent on being imprisoned. As such, the best available evidence in 2009 strongly supported the idea that the fact of imprisonment was mildly criminogenic or had no effect on criminal activity.²

More recent follow-ups that examine whether prison or jail incarceration increases, decreases, or has no effect on criminal activity relative to a noncustodial sanction support the hypothesis that imprisonment has no effect on criminal activity (Loeffler, 2013; Mitchell et al., 2017) or increases crime (Bales & Piquero, 2012; Harding et al., 2017). All of these studies relied on future contact with the criminal justice system as a measure of recidivism — a potentially problematic source of measurement bias that will be discussed shortly. However, one study did differentiate effects on convictions for new crimes from effects on parole and probation violations (Harding et al., 2017). This study found that imprisonment did not affect the probability of committing a new crime; instead, all of the effects on crime were concentrated in technical violations of parole (Harding et al., 2017). Given this finding, the evidence seems especially strong that the fact of imprisonment has no average effect on criminal activity, even if it does increase the risk of reimprisonment.

Recent follow-ups on sentence length, contingent upon imprisonment, also generally support the idea that imprisonment has little effect on subsequent crime. In one especially relevant study, Mears and colleagues (2016) found that the first and second years roughly offset in terms of effects on criminal activity and that there are no discernible effects of sentence length on imprisonment after

¹ Some research considers how extremely long-term imprisonment can shape the desistance process (Kazemian, 2019, p. 41). However, attention here is focused on differences in sentences for individuals likely to be released at some point in their life when they could still plausibly be criminally active. As a result, this section conceptualizes the effects of imprisonment length within the confines of, for instance, 10 years relative to eight, rather than 30 years relative to 25.

² Evidence from Green and Winik (2010), which considered these factors simultaneously, mirrored these conclusions.

the second year. As a result, the most recent evidence supports the idea that there are minimal effects of sentence length on criminal activity — and provides no evidence for the hypothesis that long sentences decrease crime.

Nature of Imprisonment

Although there is a host of conditions of confinement that could shape desistance from crime (Wildeman, Fitzpatrick, & Goldman, 2018), much of the existing literature focuses on using a regression discontinuity approach³ to test how placement in a higher-security facility relative to a lower-security facility affects the risk of recidivism. In general, this research finds that placement in a higher-security facility tends to have no effect on the risk of recidivism or to marginally increase the risk of recidivism (Chen & Shapiro, 2007; Drago, Galbiati, & Vertova, 2009; Gaes & Camp, 2009). Some research speculates that exposure to more peers who are criminally engaged may drive these effects; however, no study to date has sufficiently analyzed possible mediators to know with certainty what is driving this relationship. And although there is now a growing literature on how conditions of confinement moderate the effects of prison and jail incarceration, and on the need to focus more on conditions of confinement (Kreager & Kruttschnitt, 2018), the reality is that we still know little about how conditions of confinement in the United States shape the desistance process. This research gap has implications for both policymakers and practitioners.

Recent analyses in Denmark combined registry data with data on conditions of confinement and shed light on how relevant conditions of confinement might be for criminal activity. Using a difference-in-differences framework, which is one of the most rigorous methods that can be used to tease out causal effects absent an experimental setup, one recent article showed that individuals who are placed in solitary confinement, even for a short period of time while incarcerated, are about 10 percentage points more likely to be convicted of committing a new crime in the three years following release than matched individuals who are not placed in solitary confinement (Wildeman & Andersen, 2020). Solitary confinement is obviously extreme in terms of conditions of confinement. Nonetheless, this article shows that a greater focus on how conditions of confinement moderate the effects of incarceration could be extremely useful.

Effects of Incarceration on Life-Course Outcomes

Although crime is, of course, a core indicator of desistance, there is a host of other social conditions that tend to come along with desistance from crime (Laub & Sampson, 2003; Maruna, 2001). This section summarizes findings from

³ In most of the research in this area, this approach is used to compare the outcomes of individuals with slightly higher risk scores who were placed in a higher-security facility to those of individuals with slightly lower risk scores who were placed in a lower-security facility.

existing research on how prison and jail incarceration affect four life-course outcomes likely tied to the desistance process: labor market attachment and success, family life, housing (in)stability, and mental health.⁴ Before discussing these findings, it is worth noting that many of the studies are based on self-reports of incarceration and the outcome of interest. They also provide more meaningful insight into the effects of short prison and jail stays than longer stints and provide more associational insight than causal insight.

As sociologists have long argued (Pager, 2003; Western, 2002), incarceration could be associated with poor labor market outcomes through selection (no causal effect), the stigma attached to incarceration (causal effect), and transformations to individuals — whether in the form of lost human capital or behavioral transformations — that make them less likely to flourish in the labor market (causal effect). Research shows that labor market attachment is essential to the desistance process (Laub & Sampson, 2003; Maruna, 2001); subsequently, poor labor market outcomes have the potential to impede the desistance process.

Early research tended to show that prison and jail incarceration led to a 10% to 30% decrease in earnings (Western, 2002, 2007) and that the stigma attached to a criminal record explained some of that association (Pager, 2003). More recent research finds either no effect on labor market outcomes (Loeffler, 2013) or effects that are concentrated among individuals who were formerly incarcerated and had some presentence history in the formal labor market (Harding et al., 2018). One study offers evidence that imprisonment could lead to short-term increases in labor market activity for those with little labor market engagement previously; however, these positive labor market effects receded within a relatively short period of time (Harding et al., 2018).

Research also shows that strong family ties tend to promote desistance (Sampson & Laub, 1990; Warr, 1998). As a result, if incarceration damages family ties, then it could impede the desistance process. Ethnographic research on the effects of imprisonment on family ties paints a complex, generally negative portrait: Although incarceration has some short-term benefits for families when individuals are spiraling out of control (absent interventions from social services), the long-term effects are largely negative (Braman, 2004; Comfort, 2008). Quantitative research on the effects of incarceration — almost regardless of the outcome considered — finds the same basic pattern. Although the effects of incarceration on the transition into marriage remain contested, there is a general consensus that incarceration increases the risk of union dissolution, largely driven by the time spent apart from each other (Lopoo & Western, 2005; Massoglia, Remster, & King, 2011).

⁴ This is not meant to be an exhaustive list of possible consequences of prison and jail incarceration. The focus here is on outcomes that are either certainly or almost certainly linked with the desistance process. For a more complete review of the literature that considers these effects, see Kirk and Wakefield (2018).

Relatively few individuals who experience incarceration are married at the time of their arrest. Thus, deciphering the effects of incarceration mandates a more nuanced investigation of how it shapes their contributions to family life and any negative repercussions. Mothers who have children with a man who experienced incarceration, for instance, report much lower levels of paternal contributions to family life (Turney & Wildeman, 2013); this pattern is observable not only for engagement in family life but also with direct financial contributions (Geller, Garfinkel, & Western, 2011). Although much of the research focuses on family consequences for children and mothers (Wakefield & Wildeman, 2013; Wildeman, Schnittker, & Turney, 2012), the family strains caused by incarceration would also likely get in the way of family support for the desistance process (but see also Sampson, 2011).

Although very little research has considered the effects of housing instability, it is clear that severe levels of material deprivation — such as those indicated by homelessness — could impede the desistance process. It is also well-documented that individuals who are released from a correctional facility experience high rates of homelessness and housing instability (Herbert, Morenoff, & Harding, 2015; Metraux & Culhane, 2004; Western et al., 2016; Western, 2018). Relatively little research provides strong evidence on how incarceration affects housing instability and homelessness, but the little available evidence suggests that incarceration increases the housing insecurity of fathers living in urban areas (Geller & Curtis, 2011). This evidence is far from definitive; nonetheless, it does indicate another channel through which incarceration could impede the desistance process.

Many individuals with documented mental health problems desist from crime; however, an increase in mental health problems seems especially unlikely to facilitate the desistance process. As a result — to the degree that prison and jail incarceration exacerbate mental health problems — this would suggest another mechanism through which incarceration could impede the desistance process. In the most complete assessment to date, Schnittker and colleagues (2012) showed that a history of incarceration is associated — possibly causally so — with a range of mood disorders, including dysthymia, bipolar disorder, and major depressive disorder. Other research has shown that even if there are short-term benefits of incarceration for some mental health problems (but see Wildeman, Schnittker, & Turney, 2012), the preponderance of evidence suggests that a history of incarceration harms mental health (Massoglia & Pridemore, 2015; Turney, Wildeman, & Schnittker, 2012).

Although a large body of research considers the consequences of incarceration for core life-course outcomes, it is nonetheless important to remember that much of this research relies on self-reports for both criminal justice contact and life-course outcomes. Further, the research is better situated to estimate the effects of jail incarceration than prison incarceration, and it tends to use research designs

that are less able to yield causal effects of incarceration than would be ideal for policymakers and practitioners.

Likely Effects of Incarceration on the Desistance Process

Existing research thus suggests that prison and jail incarceration have negative effects on a series of life-course outcomes that are relevant for the desistance process. These include, but are not limited to, worse labor market outcomes, more troubles in their families, higher levels of housing instability, and worse mental health. In light of this evidence, even if incarceration did not impede the desistance process in the several years after release from a correctional facility, it would be reasonable to expect incarceration to indirectly get in the way of desistance.

How Incarceration Affects Desistance Among Individuals Who Chronically Offend

Although research on the effects of incarceration on crime and other life-course outcomes provides insight into the ways in which incarceration could influence the desistance process among individuals who are chronically engaged in criminal activity, there are four core gaps in the literature that make it difficult to fully conceptualize these effects. First — and probably most importantly — none of the existing research on the consequences of incarceration focuses on individuals who are chronically active in crime. Instead, many of these studies look more broadly at all individuals who come into contact with prisons and jails. Second, none of the research on the effects of incarceration on crime actually measures crime, much less desistance. Instead, it focuses on measures of additional criminal justice contact. Third, very little research provides insight into how conditions of confinement moderate the desistance process. Finally, none of the classic studies of desistance use data from individuals who were actively engaged in criminal activity during what some call the era of “mass imprisonment” (Garland, 2001). This is problematic because many of the processes highlighted as driving the desistance process in earlier work may not apply to these cohorts.

Inattention to Individuals Who Are Chronically Active in Crime

Of the many gaps in our knowledge about how incarceration shapes the desistance process, the lack of emphasis on individuals who chronically engage in crime is almost certainly the most serious.

Life-course criminology — and its study of the criminal careers of those who chronically offend — has long formed a core of the criminology discipline. The literature on crime and the life-course is voluminous and has recently been reviewed elsewhere (Farrington, Kazemian, & Piquero, 2019). Essential to any discussion of life-course criminology is the work of criminologists in adopting the concept of a criminal career to explore criminality over time, as well as a developmental framework to examine the concentration and early pathways of crime among individuals with a specific set of risk factors. For example, Blumstein and colleagues are well known for their contributions to understanding criminal careers (Blumstein et al., 1986; Blumstein, Cohen, & Farrington, 1988; Piquero, Farrington, & Blumstein, 2003). Also, West and Farrington's Cambridge Study in Delinquent Development is a leading example of the developmental risk-factor approach, highlighting the onset and long-term patterns of antisocial and criminal behavior in a cohort of working-class London boys born in the 1950s (West & Farrington, 1977; Piquero, Farrington, & Blumstein, 2007).

Research on persons who chronically offend provides support for four central conclusions. First, they engage in relatively high levels of often-serious criminal activity for an extended period of time. Second, although there are some life-course-persistent individuals — those who simply do not desist from crime at any point in their lives — most persons who chronically offend do eventually desist from crime (Laub & Sampson, 2003; Moffitt, 1993). Third, contact with the criminal justice system — both lower-level contacts like arrests and higher-level contacts like jail and prison incarceration — are common for this group from a relatively young age. Finally, they tend to have lower levels of prosocial ties to educational institutions, families, religious institutions, prosocial friends, and the labor market than others who either do not engage in crime or engage in crime at a lower rate. Thus, persons who chronically offend differ from other members of society, on average, in a host of ways that may be relevant for the desistance process.

The unique features of persons who chronically offend make their desistance process especially important to understand for a number of reasons. Because these individuals commit such a large share of crimes in society, it is critical not only that they eventually desist from crime but, especially, that they do so quickly. Prisons and jails may provide an important intervention point for these individuals in the desistance process, whether for good or ill, as those who chronically offend are simultaneously very likely to come into contact with the correctional system and very unlikely to have much exposure to forces that can facilitate desistance. As a result, it is important to know how prison and jail incarceration does — or does not — affect their desistance process.

Although this paper focuses on the American criminal justice system, it is worth pointing out, albeit briefly, that a series of experimental interventions in the lives of individuals who chronically engage in crime in Denmark provides important insight into the causal effect of short prison incarcerations (almost always less than a year) relative to noncustodial sanctions (including community service and electronic monitoring). Research from a series of policy changes in Denmark provides strong causal evidence that even short stints of imprisonment increase welfare dependence (Andersen & Andersen, 2014), the risk of union dissolution (Fallesen & Andersen, 2017), and the risk of conviction for a new crime (Andersen, 2015). The Danish and American contexts differ markedly, of course, but because the Danish incarceration rate is so much lower than that of the United States, it is reasonable to assume that the population of persons incarcerated in Denmark is likely heavily made up of those who chronically offend. Thus, the estimates of these studies can offer insight into the likely effects of imprisonment on the desistance process for persons who chronically offend in the United States.

Measurement of Crime, Criminal Justice Contact, and Desistance

As with classic research on desistance (Laub & Sampson, 2003; Maruna, 2001), most contemporary research conceptualizes desistance as both a departure from criminal activity, which may be slow or intermittent, and a shift in prosocial dimensions that often accompanies — and possibly drives — declines in criminal activity (Rocque, 2021). Unfortunately, virtually all research on how incarceration affects the desistance process (1) relies on official measures of criminal justice contact rather than criminal activity and (2) has a relatively short follow-up — often less than three years.

The sole use of administrative data from the criminal justice system is problematic for three reasons. First, administrative data on technical violations of parole, which are sometimes used as the outcome of interest (for a critique, see Harding et al., 2017), provide information not on new crimes but on a failure to follow the conditions of parole. Consequently, these measures provide little insight into crime. Second — and as highlighted by another paper in this volume (Rocque, 2021) — the desistance process often includes fluctuations in criminal activity. A reliance on official criminal justice data, often including individuals who are on parole, does not offer the possibility of measuring multiple criminal episodes because virtually every person who violates the technical conditions of his or her parole, or is convicted of a new crime, will be sent back to a correctional facility. Hence, there will not be a chance to reoffend. Third, and maybe most importantly, given racial, ethnic, class, and gender disparities in criminal justice contact that are not driven solely by disparities in criminal activity (Travis, Western, & Redburn, 2014), our understanding of how the desistance process varies across core points of social stratification is biased —

potentially heavily biased — by focusing exclusively on criminal justice contact rather than crime.

The focus on relatively short follow-up periods is also problematic. As previous research indicates, the desistance process often takes years (Laub & Sampson, 2003; Maruna, 2001). Thus, there are reasons to expect that a short window of time, such as a handful of years, is insufficient for measuring desistance.

Inattention to Conditions of Confinement

Conditions of confinement represent a key force in shaping the well-being of individuals during and after their incarceration (Travis, Western, & Redburn, 2014; Walker, 2016). But existing research on how incarceration affects the desistance process provides very limited insight into the degree to which conditions of confinement could moderate the effects of incarceration.

This lack of evidence is problematic for four reasons. First, as noted above, conditions of confinement have the potential to shape the well-being of individuals both during the time they are incarcerated and after their release. This is the case for crime and a host of other outcomes (e.g., labor market outcomes, family life, housing stability, mental health) that often come with desistance from crime. As a result, understanding how in-facility programming and more mundane conditions (e.g., the amount of natural light, the quality of food) shape different outcomes is crucial for understanding the desistance process.

Second, conditions of confinement are, with some notable exceptions, readily modifiable without political intervention in ways that many other features of the criminal justice system are not. Heads of departments of corrections, wardens, and other practitioners working in correctional facilities have the opportunity to “tinker” with prison and jail conditions in ways that could ostensibly benefit people who are incarcerated and then evaluate those changes. This is not the case when it comes to altering prison sentences, jail sentences, and noncustodial sanctions, however.⁵

Third, the prison and jail conditions that individuals experience while incarcerated can be tied to their probability of desisting from crime and potentially lead to scalable changes because some features of prison and jail life are the same everywhere — or at least are sufficiently similar on many key dimensions everywhere.

⁵ The Pennsylvania Department of Corrections is an exemplar in this regard, as it both consistently seeks to modify conditions of confinement to help individuals who are incarcerated and rigorously evaluates the modifications.

Finally, the incarceration period may be the only opportunity for a state institution to help divert people — especially those who chronically engage in crime — from their criminal activities. As a vast body of research shows, individuals who are chronically involved in criminal activity tend not to engage with a range of prosocial institutions. As a result, prisons and jails may, sadly, be the place in which this population is most likely to receive services. Because this may be one of the few times the state engages with individuals who chronically engage in crime, it is ideal to gather as much data as possible on “what works” in correctional settings.

A Mismatch of Samples

There is a core limitation in the literature that makes it difficult for researchers to precisely estimate the effects of imprisonment on the desistance process: Many of the datasets used are from a sufficiently different time period, which limits their utility for understanding the contemporary desistance process.

Consider the example of Laub and Sampson (2003). The cohort of boys they studied came of age in an era that differed in at least three central ways from our current society. First, marriage, stable employment, and military service — three of the central turning points highlighted in their work on the desistance process — are less prevalent now among marginalized populations than they would have been for the youth they studied.⁶ It is unclear what processes, if any, have replaced these on the pathway to desistance.

Second, incarceration in prison and jail has become dramatically more common in the contemporary era (Blumstein & Cohen, 1973; Western, 2007). Thus, the life-course would have proceeded differently for those who chronically offended in the Glueck study (Glueck & Glueck, 1950) on which Laub and Sampson relied than it would for the contemporary person who chronically offends.

Finally, the Glueck cohort was primarily composed of non-Hispanic white males. In addition to the fact that many of the opportunities available to these men would not have been available in the same degree for African Americans, Hispanics, Asians, and Native Americans at that time (leading the study to provide estimates that do not generalize well to the population at the time), it is also worth noting that these cohorts no longer represent the diversity of contemporary society (leading the study to provide estimates that also do not generalize well to society now).

⁶ Although military service remains common in the United States, restrictions on military service for some types of criminal records interact with high rates of incarceration in poor, minority neighborhoods in ways that make military service a less viable turning point for many individuals who chronically offend in contemporary society.

Likely Effects of Incarceration on the Desistance Process for Persons Who Chronically Offend

Although there are limitations in existing research, there is still sufficient evidence to speculate about the likely effects of prison and jail incarceration on the desistance process for individuals who chronically engage in criminal activity. This group differs in core ways from other individuals at risk of prison or jail incarceration, and so it is worth considering ways in which the effects of incarceration on the desistance process might differ for them.

Thinking in terms of the areas discussed earlier in this paper — criminal justice contact, labor market outcomes, family life, housing instability, and mental health — there is no *a priori* reason to expect those who chronically offend to respond better to the prison or jail environment than other individuals. However, research does suggest that because persons who chronically offend may be sufficiently disengaged from family life and the labor market, they may experience fewer negative consequences in those domains than other individuals who experience prison or jail incarceration. And, indeed, there are reasons to expect that prison and jail incarceration may actually be more damaging for persons who chronically offend than for others since they have less support after release. It would be realistic, then, to think that the effects of prison and jail incarceration on the desistance process for this group would generally be negative. At the same time, more research is sorely needed to isolate these effects.

Implications for Policy

This paper's findings present an interesting dilemma for policymakers. On the one hand, the research summarized here provides a strong argument for decreasing rates of prison and jail incarceration. This is the case for three reasons. First, incarceration is expensive, especially with the extensive programming needed to help persons who chronically offend use incarceration as a positive turning point. These costs, moreover, are especially relevant given the likely substantial cuts that will continue to come to state and local budgets in the wake of the global pandemic. Second, it appears that prison and jail incarceration impede prosocial engagement in a range of domains among people who were formerly incarcerated. These significant social costs must be considered. Third, and most importantly, the findings suggest that the fact, duration, and severity of prison and jail incarceration all likely decrease the probability of desistance — or at least significantly delay it — and increase the risk of recidivism. As a result, the long-term effects of prison and jail incarceration on persons who chronically offend seem likely to cost more money in the long term (in terms of both the costs of crime and the costs of incarceration) than would noncustodial sanctions,

shorter periods of prison and jail incarceration, and incarceration in less severe conditions.⁷

Yet policymakers must also consider the short-term costs of not incarcerating persons who chronically offend, costs that significantly complicate any policy discussion. Although there are few policy reasons to object to less severe prison conditions or shorter sentences for those who chronically offend — as these would likely cost the state less money and not lead to any discernible increase in criminal activity in society — there may be concern about the risks of crime associated with imposing noncustodial sanctions on these individuals during their criminally active years. Few, if any, studies test for these short-term effects — the costs of crimes taking place while individuals serve out the noncustodial conditions of their sentences — and, consequently, it is difficult to decipher how the short-term costs compare to the long-term costs associated with imprisonment's negative effects on desistance.

Although the evidence on the effects of incarceration on desistance among persons who chronically offend remains partial, there are nonetheless three core takeaways for policymakers. First, shorter sentences are likely to save money in both the short term and the long term, with minimal short-term costs in terms of increased crime and potentially significant long-term savings in terms of decreased crime. Second, less severe conditions of confinement will likely promote desistance after release. And because higher-level facilities are more expensive to run, shifting more individuals to lower-security facilities could yield short- and long-term savings. The evidence is insufficient when it comes to whether noncustodial sentences are appropriate for persons who chronically offend because current research does not simultaneously consider the short- and long-term costs and savings in terms of crime, incarceration, and other prosocial engagements that tend to come with desistance.

Implications for Practice

The findings from this paper also have implications for practitioners working in correctional, probation, and parole settings. Any shift toward less punitive sanctions for persons who chronically offend will likely lead to increased levels of positive engagement from practitioners. Although this section focuses on individuals already working in the criminal justice system, the reality is that a broader investment in improving the conditions of confinement and conditions

⁷ These arguments, moreover, likely apply to an even greater degree to individuals who currently experience prison and jail incarceration but who do not display the patterns of criminal activity that persons who chronically offend do. This is the case because virtually all of the long-term benefits discussed for those who chronically offend would also apply to the broader spectrum of individuals who engage in crime, but the short-term costs for individuals who engage in less criminal activity would likely be far lower than for those who chronically offend.

of probation and parole will also rely on practitioners in the public health and social welfare systems.

If we move away from custodial sanctions in favor of noncustodial sanctions, the implications for practitioners working in the probation system would be most crucial, as the average level of criminal activity — and other poor life-course outcomes — among persons on probation would likely increase. Three key implications for practice spring from this. First, probation officers would have to become comfortable revoking probation less consistently for technical violations of probation to keep persons who chronically offend and are diverted from the correctional system from rapidly being sent there for a technical violation. Second, the breadth and depth of training for probation officers would have to be significantly increased to help serve this vulnerable population, or there would need to be a movement toward a shared model of case management in probation that also relies on the expertise of practitioners working in medical and social work settings. Third — and maybe most importantly — if the number of persons who chronically offend and are on probation increases, it would be more difficult to move the average individual on probation toward desistance. Therefore, local agencies should decrease the caseloads each probation officer manages.⁸

Although shifting more persons who chronically offend into less restrictive criminal justice settings would likely have the most severe implications for practitioners working in the probation system (and, albeit to a lesser degree, the parole system), this change would also have implications for individuals who manage and work inside of prisons and jails. For individuals who work in the prison system, shorter sentences and less restrictive conditions (when possible) have implications for programming and safety within prisons. On each front, the key to managing this shift in the composition of persons incarcerated is to make it slowly and gradually, with an eye on the level that is most manageable within each different type of institution. Regardless of how slowly the shift is made, it is crucial — for both safety within correctional settings and reentry outcomes after release, including desistance from crime — that practitioners who manage and work in prisons invest deeply in improving the conditions of confinement however they can. This will improve the mundane details of prison incarceration and focus on what works in improving post-release outcomes.

For individuals who manage and work in the jail system, the implications for practice are even more complex and dovetail with policy. Successfully incorporating persons who chronically offend into jail systems will pose some significant challenges. Specifically, jail systems will need to decide whether they have the resources to offer the quick, high-intensive programming needed to prepare these individuals for release. If they are unable to do so, they must decide

⁸ Many of these arguments would also apply to individuals working in the parole system, but this section focuses more on the probation system because the changes in the probation system may be more jarring to practitioners.

whether it is more appropriate to push for a system in which short prison stays or noncustodial sanctions are preferred over jail stays within their jurisdiction, or to shift individuals sentenced to jail time to another system that is able to offer such programming. Thus, on a practice level, jail systems will need to decide whether they are ready and willing to incorporate more persons who chronically offend. If they are, a more coordinated spectrum of care that builds on local experts in the medical and social work systems will be a crucial step for local jails.

In short, a broad suite of programs during imprisonment is needed to facilitate desistance, given both the findings on the well-being of those who chronically offend prior to imprisonment (which highlighted the many ways these individuals struggle prior to experiencing criminal justice contact) and the need for them to “make good” after release from prison. Individuals who chronically engage in crime and receive noncustodial sanctions will especially need services because they must begin the desistance process immediately or risk custodial sanctions. As a result, any move away from higher-security facilities, longer prison and jail sentences, and custodial sanctions will likely place a significant demand on parole officers, probation officers, and individuals working in correctional settings.

Avenues for Future Research

The lack of a significant body of research on how imprisonment shapes the desistance process for persons who chronically offend calls for a substantial investment in research that:

- Extends several Bureau of Justice Statistics data holdings to provide more direct insight into this question.
- Provides rigorous evidence on how conditions of confinement moderate the effects of imprisonment on the desistance process for this population.
- Extends both general population and high-risk longitudinal studies of youth later in the life-course by using survey data to consider these questions.

Each has the potential to resolve the four problems with existing research documented earlier.

The remainder of this paper discusses how next steps in each of these three areas could enhance our understanding of how imprisonment shapes the desistance process for persons who chronically offend. Specifically, research in the field would benefit from (1) using existing criminal justice data to address these questions by supplementing the data with information on criminal activity and core indicators of desistance, (2) discussing the conditions of confinement that could promote desistance among those who chronically offend, and

(3) supplementing existing data that focus on youth involved in the juvenile justice system or a population sample that has a sufficiently large number of persons who chronically offend to shed new light on this relationship.⁹

More Targeted Use of Existing Datasets

Although existing data have core limitations, the Bureau of Justice Statistics collects at least two datasets that could be used in a more targeted way to consider the effects of imprisonment on criminal activity among persons who chronically offend: the National Corrections Reporting Program (NCRP) and the Recidivism of State Prisoners Studies (RSP).

According to the Bureau of Justice Statistics (n.d.-a), the NCRP “collects offender-level administrative data annually on prison admissions and releases, and year-end custody populations, and on parole entries and discharges in participating jurisdictions. Demographic information, conviction offenses, sentence length, minimum time to be served, credited jail time, type of admission, type of release, and time served are collected from individual prisoner records. The collection began in 1983 and is conducted annually. Beginning in 1999, jurisdictions also began providing a stock file for all inmates held at year-end. In 2012, jurisdictions began reporting parole entry data. The number of states submitting data to NCRP has varied over the years, but ... all fifty states provided at least one type of NCRP record in 2011-2014, with 49 submitting data in 2015 and 47 in 2016.”

Unlike the NCRP, which has been collected continuously for nearly 40 years, the RSP has been collected only three times: in 1983 (in 11 states), 1994 (in 15 states), and 2005 (in 30 states) (Bureau of Justice Statistics, n.d.-b). The goal has been to link a sample of individuals who were released from prison in a specific year to their subsequent arrest, conviction, and incarceration experiences in the three (1983 and 1994) to nine (2005) years following release. As with the NCRP, the data are administrative in nature. Recidivism is reported only in the state in which the individual most recently served time in prison, leading estimates from this survey to be somewhat conservative.

Currently, the data collected in the NCRP and RSP only consider criminal justice contact, not criminal activity. However, three features of the datasets make them well-suited for expansion to provide insight into the desistance process.

⁹ The National Institute of Justice has made two recent investments in the third area suggested here; therefore, this paper will spend less time discussing this area than the two areas yet to receive a significant investment. See <https://nij.ojp.gov/funding/awards/2020-mu-mu-0017> for an extension of the Rochester Youth Development Study and <https://nij.ojp.gov/funding/awards/2020-jx-fx-0002> for an extension of the Project on Human Development in Chicago Neighborhoods. Although neither of these awards is heavily focused on the effects of incarceration on desistance among persons who chronically offend, both could address those research questions.

First, both datasets contain extensive information about the criminal justice contacts of individuals who are on the cusp of release from prison. Thus, it is possible to identify latent classes of offending that map onto the categorization research has used to define chronic offending (Loughran, Nagin, & Nguyen, 2017; Nagin, 2005). Second, the large number of individuals included in both the NCRP and RSP would allow for extensive testing of the effect of sentence length on offending across the life-course. Third, both datasets include significant variation in time served, which is driven by temporal and geographic differences in sentence length and the proportion of a sentence that must be served prior to release. Thus, plausibly exogenous variation in time served could potentially be identified to estimate causal effects.

Although prior analyses have used the NCRP and RSP to answer an array of criminological questions, these data have been underused for considering the consequences of imprisonment on the criminal activity of persons who chronically offend and could be extended markedly. One possible way to expand the NCRP or RSP would be to choose a random sample¹⁰ of individuals who have just been released from prison and track them for many years following their release. All (or virtually all) individuals in the sample had been criminally active at some point in their lives, and so even a relatively small cohort (500 to 1,000 individuals) would provide significant insight into the relationship between imprisonment, chronic offending, and desistance from crime because many would eventually be reimprisoned, continue offending but not be imprisoned, or desist from criminal activity. A survey that includes information on criminal activity and social circumstances (e.g., marriage, housing stability, employment) — preferably that was conducted frequently to map changes in social circumstances to changes in criminal activity and recidivism (Horney, Osgood, & Marshall, 1995) — could increase scientific knowledge in this area in a potentially low-cost way.¹¹

¹⁰ It could also be reasonable to stratify by the consistency and severity of criminal justice contact.

¹¹ Of course, any data collection effort like this must manage a tradeoff between cost and attrition. As such, there are a number of features of any data collection effort in this area that merit discussion. First, and most importantly, participating individuals would need to know that an independent research team was conducting the survey and that their confidential data would not be shared with correctional officials. Absent such assurances, it seems unlikely that any data collection effort would be successful, especially since it would likely be seen as coercive, causing ethical problems. Second, data collection costs vary massively across data collection mechanisms (Sugie, 2018; Western et al., 2016); it would be important for the National Institute of Justice to conduct a pilot study in which three or four of the most promising mechanisms for facilitating participation among marginalized programs are compared to ensure that the most cost-effective methods for retaining the sample are used. Absent a pilot data collection effort like this, any new data collection effort would likely include either a smaller sample than would be ideal (because a high-cost method was used) or a higher attrition rate than would be ideal (because a lower-cost method that was not proven effective was used). Although it would be ideal for such a pilot to be broadly representative, it may be more realistic to instead partner with a state that has shown interest in collaborations with outside researchers (i.e., Pennsylvania) to keep the pilot costs reasonable.

Greater Focus on Conditions of Confinement

A recent review of the research on conditions of confinement in federal prisons, state prisons, and local jails called for a more intensive focus on how conditions of confinement moderate the effects of imprisonment (Wildeman, Fitzpatrick, & Goldman, 2018). Although there is a large body of research on how the severity of prison conditions (Gaes & Camp, 2009; Wildeman & Andersen, 2020) and the level of access to various types of in-prison programming (Chappell, 2004; Pompoco et al., 2017) shape post-release recidivism risks, very little of this research has directly considered persons who chronically offend.¹² Further, the range of conditions of confinement that have been considered to this point is relatively limited. Table 1, which is adapted from an earlier review of research (Wildeman, Fitzpatrick, & Goldman, 2018, p. 33), provides some insight into the conditions of confinement that merit further emphasis.

This research area is promising partially because of data availability. A growing number of state prison systems are showing interest in collaborating with researchers to better understand how their systems promote desistance from crime, among other outcomes, and are providing access to their correctional facilities more broadly (Kreager et al., 2017).¹³ Thus, targeted emphasis on conditions of confinement could be beneficial for both this specific research question and the field of criminology because it could encourage even greater collaboration between academics and correctional systems.

It is important to note that absent some additional data collection that examines criminal activity, studies relying exclusively on administrative data will provide insight not on chronic offending or desistance from crime but on chronic criminal justice contact and desistance from criminal justice contact. As such, significant data limitations will remain.

Extending Existing Longitudinal Studies

This paper has suggested that to enhance our understanding of how imprisonment shapes the desistance process for persons who chronically offend, researchers should build on existing administrative datasets — in one case, national data holdings from the Bureau of Justice Statistics, and in another case, state- and county-level data on conditions of confinement. Yet this is hardly the only possible path forward. Another way would be to follow in the

¹² Few studies doing primary data collection in correctional settings have worked with persons who chronically offend, which may be partially due to a reluctance on the part of departments of corrections to allow access to higher-security facilities. For example, Kreager and colleagues (2017, p. 82) drew their sample from a “good behavior” unit.

¹³ Although there are many excellent examples of such collaborations, one recent example is the Prison Inmate Networks Study (PINS).

Table 1. A Partial List of Conditions of Confinement

Space	Routine	People
Cell/sleeping area	Programming	Persons incarcerated
Shared/single	Educational	Cell/bunk mates
Square footage	Basic education	Program/group
Crowding	GED	activity
Percent in solitary/ segregated	College level	participants
housing	Vocational	Attorneys/legal staff
	Life skills/personal improvement	
Common recreational area(s)	Religious activities/ organizations	Department of Corrections personnel
Indoors		Heads of department of corrections
Outdoors	Leisure time	Correctional officers
	Television	Wardens
Cafeteria	Reading material	Parole boards
	Exercise/physical activity	
Programming/work rooms	Sleep	Corporate leadership (private prisons)
Bathrooms		
	Outside contact	Other facility personnel
Light	Mail	Administrative staff
Artificial/natural	Calls/phone use	Programming staff
	Visits	Medical and psychiatric staff
Noise level		Chaplain
Daytime	Services	
Nighttime	Medical (physical and mental health)	
Cleanliness	Behavioral interventions	
	Rehabilitative (alcohol, drugs)	
Safety		
Temperature	Meals	
Heating	Nutritional quality	
Air conditioning	Commissary	
	Work assignments	
	Count	
	Being made “orderly”	

Source: Adapted from Wildeman, Fitzpatrick, & Goldman (2018, p. 33).

footsteps of Sampson and Laub's (1993; Laub & Sampson, 2003) extension of the classic Glueck study (Glueck & Glueck, 1950). The logic of Sampson and Laub's path-breaking work is relatively straightforward: Start with a classic study that contains detailed measures from the time children were young, apply the most modern techniques to it, and extend it many years into the future to provide insight into how the desistance process played out for different types of persons who commit or are convicted of committing crimes. The payoff from this extension was great — and, indeed, many of the most important insights on the desistance process stem directly from Sampson and Laub's pioneering work.

There are two core limitations to extending a study in which most of the participants are by now approaching their 100th birthday (Glueck & Glueck, 1950). First, the life-course has been transformed dramatically across recent cohorts — the life-course for more recent cohorts now features very high rates of incarceration and very low rates of violent crime. This transformation, moreover, has been especially profound for young men with low levels of educational attainment, who now experience incarceration at extremely high rates and victimization at lower rates than earlier cohorts. Second, as researchers focusing on mass incarceration have detailed extensively (Western, 2006), these shifts in the broader life-course for men have interacted with dramatic changes in the criminal justice system, making an updated consideration of the later adulthood of persons who chronically offend necessary.

As a result, extending two specific types of studies might be especially fruitful. First, extending some of the classic longitudinal studies of youth involved in the juvenile justice system from the 1970s through the contemporary era, in much the same way Sampson and Laub did, seems like an exceptionally promising avenue (Sampson & Laub, 1993; Laub & Sampson, 2003). These studies include a large number of youth involved in the justice system, many of whom would have developed into persons who chronically offend. Also, many would have experienced long periods of imprisonment. And because the individuals included in these studies would remember contributing extensive data to the original data collections, they would likely be more willing to complete an extensive survey on crime, criminal justice contact, and social conditions than individuals who had not been involved in such a study at an earlier time.

A second type of study that could be extended would include a broader range of information on a more population-representative sample of youth. Although extending this type of sample could have some limitations, it is worth considering for a number of reasons. First, broader longitudinal studies that are not focused exclusively, or even primarily, on crime and criminal justice contact may yield insight into other factors central to child development that could have important implications for the desistance process but are not included in studies with a narrower focus. Second, because the samples in these longitudinal studies tend to be larger, researchers could potentially design a more thoughtful sampling frame than would be possible with a smaller starting sample, where

it would be necessary to include the entire sample to have statistical power. Finally, these samples tend to be more broadly population-representative, so they can help identify persons who chronically offend and may present atypical trajectories or lack many of the risk factors on which researchers have traditionally focused.

There are many studies in both of these domains that would be appropriate to consider extending. However, this paper does not provide an extensive discussion of possible datasets to extend because the National Institute of Justice has already funded extensions of two relevant studies, the Rochester Youth Development Study¹⁴ and the Project on Human Development in Chicago Neighborhoods.¹⁵ Again, these are not the only two studies that could be used to consider the effects of imprisonment on the desistance process among persons who chronically offend. Studies using additional relevant datasets are also sorely needed.

Conclusion

This paper proceeded in three stages. The first stage reviewed existing research on the consequences of prison and jail incarceration for criminal activity and other core life-course outcomes associated with desistance from crime. The central

¹⁴ The Rochester Youth Development Study (RYDS) was started in the late 1980s and was based on a sample of 1,000 youth in the public school system in Rochester, New York, during the 1987-1988 school year. The RYDS oversampled high-risk youth. The initial sample was heavily male (about 70%) and African American (about 70%); the remaining 30% of the sample was roughly evenly split between the Hispanic population and the white population. Assessments included information from both the youth and their primary caregivers, as well as files from the Rochester public schools, police department, probation department, family court, and social services. Interviews were also conducted at about ages 21 and 23; retention rates were high throughout the first two phases of the study, which spanned through young adulthood (Thornberry et al., 2016). In a third phase, additional interviews were conducted when the youth were 29 and 31, leading to a similar age of follow-up as the Pittsburgh Youth Study. These interviews were completed in the early 2000s and included much of the same information that was included in the earlier waves of data collection; information on criminal justice contacts was also included at this time.

¹⁵ The design of the Project on Human Development in Chicago Neighborhoods (PHDCN) at baseline involved a two-stage procedure (Earls & Buka, 1997). First, a stratified representative sample of 80 neighborhoods was selected in the mid-1990s, representing the variability, especially by race and class, of Chicago neighborhoods. An array of data was collected from each neighborhood, including independent surveys of residents and systematic observations of city streets. Second, a representative sample of eligible children was drawn from a screening of more than 35,000 households in the 80 neighborhoods. Children falling within seven age cohorts at the time — birth (i.e., born 1995-1996) and then every three years until age 18 (i.e., age 3, 6, 9, 12, 15, and 18) — were then sampled from randomly selected households and studied over about six years, from the mid-1990s to the early 2000s (for more details on the design, see Sampson, 2012, pp. 77-93). Because of these procedures, the PHDCN sample was broadly representative of children and adolescents living in a wide range of Chicago neighborhoods in the mid-1990s. The first round (or “wave”) of the study included just over 6,200 children who were visited for extensive in-home interviews or assessments, along with interviews with their primary caregivers, starting in late 1994 and running through 1996. Then, at roughly 2.5-year intervals, the research team collected two more waves of data (wave 2 was concentrated in 1997-1999, and wave 3 in 1999-2001).

findings indicated that any prison and jail incarceration, longer prison and jail incarceration, and prison and jail incarceration in a higher-security facility had, at best, no effect on the criminal activity of individuals who experienced those events and, at worst, a criminogenic effect. Because it also appears as though prison and jail incarceration have negative effects on other life-course outcomes, the literature suggests that it is highly likely that the fact, duration, and severity of prison and jail incarceration all impede the desistance process.

The second stage discussed the most central research gaps that exist in this area. Specifically, and most importantly, existing literature on how incarceration affects recidivism and other life-course outcomes does not focus on persons who chronically offend — individuals for whom prison and jail incarceration are most common and the consequences are likely most consequential. Existing research is also limited because it exclusively uses criminal justice contact as a proxy for criminal activity, pays minimal attention to how conditions of confinement moderate the effects of prison and jail incarceration, and relies heavily on data that come from a fundamentally different era than the contemporary one. Despite these limitations, there is little reason to expect that the negative effects of incarceration on the desistance process will be smaller for persons who chronically offend than for other individuals who are incarcerated.

The third and final stage discussed the implications of these findings for policy, practice, and research. For policymakers, the evidence suggests that less punitive sanctions may both save scarce state and federal resources and facilitate the desistance process for individuals who chronically engage in criminal activity. The benefits must be weighed against the costs of crime, however. Because even these individuals rapidly decrease their engagement in crime as they age, policymakers should still strongly consider shorter sentences. This is especially the case in the wake of the deep budget cuts likely due to the COVID-19 pandemic.

For practitioners, a broad suite of available programs during imprisonment is likely needed to facilitate the desistance process, due to both the findings on the well-being of individuals who chronically engage in criminal activity prior to imprisonment and the need for these individuals to “make good” after release from prison. Those who receive noncustodial sanctions are especially likely to need services because they will need to begin the desistance process immediately or risk custodial sanctions.

For researchers, the lack of a significant body of research on how imprisonment shapes the desistance process calls for a substantial investment in research that (1) extends several core Bureau of Justice Statistics studies using a combination of high-quality administrative data and survey data, (2) provides rigorous evidence regarding how conditions of confinement moderate the effects of imprisonment on the desistance process for this population by partnering with state and county

systems to marry information on conditions of confinement with research on the outcomes of individuals who were formerly incarcerated, and (3) extends both general population and high-risk longitudinal studies of youth later in the life-course by using survey data to consider these questions. Although the National Institute of Justice has already made an initial commitment to the final area of research through recent funding decisions, extended funding on the first two areas is still sorely needed.

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CHAPTER 4

Desistance-Focused Criminal Justice Practice

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Introduction

In a data-driven and outcome-focused environment, the criminal justice system increasingly relies on metrics to determine the impact of criminal justice interventions and to examine behavioral changes in individuals currently or formerly subjected to them. Many policymakers and criminal justice professionals are now familiar with using recidivism rates to determine impact. Even politicians and some in the general public know the term “recidivism.”

More recently, however, using recidivism as a core metric for the criminal justice system has been criticized. Some note problems in operationalizing recidivism (Klinge, 2019). Others argue that recidivism is limited as a metric because it focuses on failure rather than success, and it tends to be a binary measure of failure (Butts & Schiraldi, 2018). Critics claim that using recidivism to exclusively measure the success of criminal justice interventions is like using school dropout rates to exclusively measure the success of teachers. Further, a recidivism event requires an interaction with the criminal justice system, which means that recidivism rates measure some combination of the behavior of individuals who have been involved in the justice system and the system’s responses to that behavior. Distinguishing individual behavior changes from criminal justice system policy changes can be difficult when using a metric like recidivism rates.

Academic criminologists have increasingly called on the criminal justice system to pivot toward desistance to measure the success of interventions. The focus of desistance — a word that is far less familiar than recidivism to most practitioners and the public — is as a metric of success rather than failure. It is intended to measure the process by which those who previously participated in criminal behavior move toward stopping the behavior or ending a criminal career. Desistance explains individual change versus continuity in criminal behavior. Research has explained the risk factors for beginning to engage in criminal behavior; however, desistance focuses on the move away from such behavior given previous participation in crime. The factors that cause individuals to engage in crime in the first place are not necessarily the same factors that explain the process by which they move away from it.

In addition to it being a relatively new criminal justice term, there are a few issues that have prevented the wide-scale adoption of desistance as a metric for evaluating the impact of interventions. One problem has been that, up to this point, desistance has mostly been theoretical. Academic criminologists have written about desistance, mostly when theorizing about behavioral change. There is, in fact, no widespread agreement among criminologists on how to define or measure desistance. In the most crudely simple terms, some might think of desistance as just the inverse of recidivism. Criminologists have pointed out that this does not completely capture the concept of desistance because it is primarily a process rather than a binary event. It is the sustained absence of an event rather than an event itself, which makes it harder to operationalize and measure. As important as desistance theory is, in order for it to be a useful concept to practitioners for measuring the impact of criminal justice interventions, the focus will have to pivot from primarily theoretically driven basic research to more applied research. Practitioners will need to understand how to define and operationalize desistance in a useful way and how to translate and incorporate theoretically focused concepts of desistance into everyday practice.

The first section of this paper provides a basic overview of the theories of mechanisms of desistance and attempts to describe them in a practical way. The second section discusses some of the issues in operationalizing desistance and provides examples of operational definitions of desistance that criminal justice practitioners can use. The third section moves even more from theory to practice and discusses desistance-focused interventions. Finally, the last section provides a brief discussion of some limitations of desistance as a criminal justice metric, including obstacles for adopting desistance in a politically driven system and in day-to-day practice.

Mechanisms of Desistance

A growing body of theoretical and empirical research has outlined a variety of mechanisms through which desistance works. At a very high level, most of the

theories of the important mechanisms of desistance can be categorized as either ontogenetic or sociogenic focused. In other words, they tend to focus on factors either internal to the individual (ontogenetic) or external (societal) from the individual (sociogenic).

Psychological Mechanisms

Internal factors might be psychological or biological. An example of a psychological theory is cognitive transformation theory (Giordano, Cernkovich, & Rudolph, 2002). Under this theory, the individual who is desisting moves from thinking patterns that are primarily antisocial or criminally focused to prosocial thoughts, attitudes, and beliefs. Cognitive transformation is the primary goal in treatment approaches, such as cognitive behavioral therapy. The idea is that internal changes to thoughts, attitudes, and beliefs primarily drive external behavioral changes. Under most psychological theories, desistance must first be internalized before it is externalized into behavioral transformation.

Biological Mechanisms

Some ontogenetic desistance theories focus more on biological mechanisms. For instance, some studies of maturational brain development suggest that the brain does not become fully developed until an individual reaches his or her mid- to late 20s (Johnson, Blum, & Giedd, 2009). The prefrontal cortex area of the brain is responsible for regulating impulse control. Impulsivity is known to be a major risk factor related to criminal behavior (Loeber et al., 2012). At the same time, a long history of research has established that criminal behavior is most prevalent among those in their late teens to early 20s, and it declines precipitously thereafter — this statistical pattern is often referred to as the “age-crime curve” (Hirschi & Gottfredson, 1983). It might be that brain maturation — leading to better regulation of impulsivity — explains why criminal prevalence peaks among those in their late teens to early 20s and then starts to decline. This is just one example of a biologically focused theory of desistance.

Sociological Mechanisms

Sociogenic theories for explaining the mechanisms of desistance focus on factors that are external from the individual and more socially structured or environmental. These external changes are often referred to as “turning points.” A body of research called life-course criminology looks at continuity versus change in behavior over the long view of one’s life and focuses on identifying these important turning points. Social turning points could include getting married, obtaining steady employment, becoming a parent, or changing one’s community

or network of friends. These factors have been referred to as mechanisms of informal social control.

One important theory (Laub & Sampson, 2003) finds that turning points that tend to lead to desistance have the following four factors in common:

- They involve a “knifing off” of the past.
- They provide monitoring and support.
- They lead to a change in routine activities.
- They lead to an identity transformation.

Getting married illustrates these four mechanisms. An individual who gets married starts a new family, has new obligations that also come with support, develops new daily routines, and often moves from an identity as a “bachelor” to a “family man.” These factors provide a sense of control of criminal behavior but in an informal manner (hence “informal social controls”), as opposed to formal mechanisms of control like the criminal justice system.

Most theories in this area also purport that these factors have a causal chain of events that work in the opposite order of the psychological factors of desistance. Remember that under psychological theories of desistance, internal change primarily precedes external change. Under sociologically focused theories of desistance, such as informal social controls, external change (i.e., turning points) primarily precedes internal change. External circumstances change first; they are later followed by internal changes, or even by no internalization at all (this has been referred to as “desistance by default”).

Labeling Mechanisms

A related category of sociogenic mechanisms of desistance involves social identity. Labeling theory is one example (Braithwaite, 1989). Under labeling theory, individuals involved in criminal behavior are, in part, acting on a preexisting societal label. In other words, they act out based on what others already think of them and how others treat them. Removing the stigma of these labels can help sustain the process of desistance. This destigmatization may involve a process of “redemption,” which will be discussed later in this paper.

Decision-Making (Human Agency) Mechanisms

Another concept is “human agency,” which refers to people’s capacity to act of their own volition. In other words, humans are not just passively affected by external factors or factors outside of their control; rather, they possess some

degree of agency to decide their course of action, including participating in or desisting from criminal behavior. The degree to which human agency plays a role in desistance is a major source of debate.

The concept of human agency is closely tied to the idea that criminal justice sanctions can be used as formal social controls or to deter criminal behavior. Although the desistance literature does not often discuss deterrence theory, it is closely tied to desistance. Interestingly, deterrence-based criminal justice approaches to desistance act in much the same way as informal mechanisms of social control, such as marriage and a job. They both involve motivating or rewarding compliance and disincentivizing noncompliance. They also can be used to change behavior without first changing internal motivation. Deterrence-based approaches might attempt to disincentivize or wear down individuals involved in crime, until they “age out” or “hit rock bottom.” One might often hear people who desist this way say they just “got tired of being tired” or that being subjected to repeated criminal sanctions required them to “fake it until they made it.” Desistance might involve decisive behavioral change without an accompanying internal change, similar to the desistance by default concept in informal social control theory. Empirical research finds that informal social control is more effective than formal social control (e.g., criminal sanctions); however, as will be discussed later, a recent resurgence of evaluations around deterrence practices shows that formal sanctions can be effective if done right.

Operationalizing Desistance

As previously discussed, one of the problems with putting desistance research into practice is the difficulty in defining and operationalizing desistance. For example, because desistance is a process rather than an event, how do we know when it happens? What type of follow-up period is needed to measure it? If too short of a period is used, an individual might return to criminal behavior after the follow-up period and thus be falsely labeled as desisting (“false desistance”). There is also the issue of how to handle the intermittent nature of criminal behavior, as individuals involved in crime tend to zigzag in and out of criminal behavior over their criminal careers. It is important to outline practical operational definitions of desistance to move toward desistance-focused criminal justice interventions.

What Behaviors Count as Desistance?

When operationalizing desistance, researchers and practitioners must decide what behaviors count. Does desistance strictly involve refraining from criminal activity, or does it also involve refraining from noncriminal deviant behavior such as substance abuse or technical violations of community supervision

(probation or parole)? Do factors such as steady employment, sobriety, and compliance with community supervision rules count as desistance, or are they proximal outcomes that are markers of desistance (as defined by strictly refraining from criminal behavior)?

Some have argued that outcomes like steady employment and stable housing are so closely related to desistance that, given the concerns with using recidivism as a metric, we should focus more on these non-criminal-justice outcomes as evidence of desistance (Butts & Schiraldi, 2018). Factors like employment rates might be easier to measure and might demonstrate more movement in a positive direction than seemingly intractably high recidivism rates. However, if the focus is on criminal behavior, then there must be a high degree of confidence in a causal link between these other factors and crime to count them as markers of desistance.

Unfortunately, much of the research linking non-criminal-justice outcomes to crime outcomes is correlational. Developing a strong and credible causal link can be very difficult. The sober, hard-working family man who engages in crime seems like a paradox that is hard to imagine, but plenty of anecdotes exist (a good illustration is the stereotypical figure involved in organized crime). This paper has repeatedly pointed out that desistance is a process rather than an event and focuses on success rather than failure. Thus, it seems reasonable to measure non-criminal-justice outcomes that are more success-focused and possibly proximal indicators of the desistance process (or may even be considered desistance themselves).

On the other hand, this assumes a strong causal link that may not be fully established or may not even exist. What happens when these proximal outcomes move in a positive direction but criminal behavior does not? There seems to be a push to focus on non-criminal-justice outcomes because recidivism rates remain so high and unchanged, and these other outcomes are, in some sense, easier to change. In other words, criminal justice agencies will have a hard time demonstrating success with traditional recidivism measures; however, they may be able to boast more success if they move the needle further on non-criminal-justice outcomes and argue that those outcomes are ultimately related to desistance from criminal behavior.

A decline in criminal behavior should remain the focus of desistance, even if other non-criminal-justice outcomes are used to augment or serve as markers of desistance. These other outcomes must demonstrate a strong causal tie to refraining from criminal behavior and should not be relied on alone. Researchers and practitioners should not abandon recidivism as a marker or component of desistance measurement, even with all of its limitations. The challenge is to marry recidivism and desistance together as complementary measures of criminal justice interventions. Very little research to date has examined this issue (Bushway, Brame, & Paternoster, 2004).

Criminal Behavior Measurement Sources

Another challenge in operationalizing desistance is determining the best data source to measure criminal behavior. Measures of criminal behavior come from several sources: self-reported behavior from individual surveys or interviews, recorded offenses reported to the police, arrest data, court conviction data, and data on imposed criminal sanctions such as imprisonment. Each source has its strengths and limitations. Self-reports get the closest to measuring behavior without mixing in the noise of the system's response (or nonresponse), but they are subjected to biases in reporting accuracy or motivation not to self-report. Official criminal justice data are more reliably defined and typically more accessible, but they can underreport actual criminal behavior and capture a mixture of criminal behavior and system behavior.

Time Horizon for Desistance

Another consideration is time horizon. Much of the existing desistance research relies on longitudinal studies that examine individuals over long time horizons. If a measure is created to evaluate the impact of a criminal justice intervention on desistance, the practical question becomes: How long should individuals be followed after the intervention to observe desistance?

Studies tend to measure recidivism rates in follow-up periods of three years or less after an intervention. If desistance is operationalized as the sustained absence of recidivism, short follow-up periods will likely be inadequate. Recidivism rates tend to drop off fairly precipitously after three years, but a substantial proportion of individuals still recidivate after that time period. Longer follow-up periods are needed to be confident that individuals are not recidivating after the end of the observed follow-up period, thus leading to false desistance. But very often policymakers cannot afford to wait for longer follow-up periods to receive feedback on the effectiveness of interventions.

Redemption Benchmarks

Redemption research has helped conceptualize how long is long enough for a follow-up period (Blumstein & Nakamura, 2009). Existing redemption research has sought to empirically examine how long an individual who was previously involved in criminal behavior must remain “clean” from such behavior to meet a threshold of an acceptably low risk of reoffending. The idea is that the risk of reoffending does not need to reach zero; rather, it should reach some acceptably low level. Redemption researchers refer to this as a “point of redemption.” For example, it might be the point at which the risk of arrest for a person previously involved in criminal behavior is as low as that for a person from the general

public (which contains a mixture of people who do and do not have previous arrest records). A more difficult benchmark of redemption to reach would be the point at which the risk of arrest for a person previously involved in criminal behavior is as low as that for a person who was never previously involved in criminal behavior. Some redemption research finds that it takes five to seven years of remaining crime-free to reach these benchmarks of redemption (Blumstein & Nakamura, 2009). They could be similarly considered benchmarks of desistance and help inform the issue of setting appropriate follow-up periods.

Signaling and Risk Assessment

Another probabilistic model for determining a marker of desistance is based on signaling theory, which comes from the field of labor economics (Bushway & Apel, 2012). The idea is that individuals who have internally changed, and thus desisted, give off “signals” (e.g., correctional program completion or college enrollment) to mark their internal change. These signals do not need to be causally related to later behavioral change; rather, they are strongly predictive of (or correlated with) later behavioral change.

The signaling model addresses concerns with long time horizons because it does not rely on long follow-up periods to observe behavioral change when internal change has already happened. Rather than waiting for a follow-up period to declare desistance, a strong enough signal could signify motivation to change and indicate desistance up front and early on. The problem with this approach, however, is that it is still probabilistic, with some degree of error in forecasting later behavior based on its correlation with the earlier signals.

Many practitioners in the corrections field are already familiar with one tool that would facilitate a signaling (probabilistic) approach to identifying desistance: criminal risk assessment instruments. Risk assessment is a fundamental part of the risk-need-responsivity (RNR) model, a prevailing paradigm in the field of corrections (Bonta & Andrews, 2017). The risk principle states that limited correctional resources should be focused on high-risk individuals because those who are low risk are not likely to reoffend, even absent intervention. A risk assessment instrument can assess risk actuarially. There are many off-the-shelf and customized risk assessment instruments in use that are fairly effective at accurately predicting future recidivism. Practitioners may be able to use individual scores from a risk assessment instrument to identify those who have, in all likelihood, desisted (i.e., low risk) without having to wait many years to measure the absence of further offending. Using risk assessment instruments seems to be an important practice for incorporating desistance principles into practice.

Three Measures of Desistance

This section concludes by offering three practical measures of desistance for consideration: deceleration, de-escalation, and “reaching a ceiling.”¹

Deceleration

Deceleration looks at desistance through the lens of slowing down the frequency of criminal offending rather than stopping it completely. Early criminal career research referred to a measure of individual frequency of criminal offending as “Lambda” (represented mathematically by the Greek letter λ) (Blumstein et al., 1986). Deceleration could be measured by an individual’s average number of arrest incidents per time period (e.g., number of arrests per month or number of arrests per year) before and after a criminal justice intervention.

For example, when looking at imprisonment as a criminal justice intervention, this could be the average number of arrests per year during the five years before imprisonment compared to the average number of arrests per year during the five years after release. There are a couple of considerations to note, however. First, one should include only the amount of “time free” in this calculation and remove time incarcerated. In most cases when using arrest as a measure of criminal behavior, an individual cannot be arrested while incarcerated. Thus, including periods of incarceration in the calculation will make the average number of arrests look artificially lower.² Consider the following example: An individual is arrested five times in one year, then spends the next four years in a county jail, then moves to a state prison. Let’s assume that this individual is later released from state prison and is arrested once per year for five years. If we compare the five years before going to state prison, without accounting for the fact that four of those five years were in a county jail, it will look like this same individual averaged one arrest per year in the five years before state prison as well. Thus, by this measure, there is no indication of desistance. But after factoring that four out of those five pre-state prison years were spent in county jail, this individual actually averaged five arrests per year before prison and moved to one arrest per year after prison. This would then indicate desistance.

¹ These three measures are adapted from Loeber and Le Blanc (1990), with two important differences. First, reaching a ceiling is defined differently here than by Loeber and Le Blanc. They defined it as reaching a plateau or ceiling in seriousness of criminal behavior. This paper defines reaching a ceiling as complete cessation of criminal behavior. This paper takes the position that Loeber and Le Blanc’s definition is partially subsumed under de-escalation; in that sense, it is redundant and does not allow for a complete stop in offending. The second difference is that this paper does not include Loeber and Le Blanc’s fourth measure, which they call “specialization” and define as a decrease in the variety of criminal offending over time. It is the position of this paper that simply reducing diversity of criminal behavior is not a marker of desistance that makes common sense to policymakers and practitioners, and so it is not included as a measure of desistance.

² Individuals obviously can commit crimes while in prison, but typically those crimes are more restricted through close surveillance and incapacitation. Also, those crimes do not tend to show up in official arrest records. Thus, incorporating them into a measure of deceleration would be complicated.

This measure of deceleration could be used as a marker of desistance, but it is less useful for directly connecting the impact of a criminal justice intervention to desistance because it is necessarily confounded with age. In the example above, let's assume that the individual spent 10 years in prison and was 25 years old when he went to prison. We already saw that after factoring in the amount of time free from confinement, this individual moved from five arrests per year before prison to one arrest per year after prison. However, this is not sufficient to demonstrate that prison itself led to desistance. This individual was 20 years old at the beginning of the five years before prison, and he was 40 years old at the end of five years after release from prison. Based on accumulated knowledge about the relationship between age and crime, a 20-year-old is significantly more likely to be involved in more criminal behavior than a 40-year-old, independent of any impact of imprisonment in deterring future criminal behavior. Separating the impact of aging from the impact of a criminal justice intervention is a difficult but not impossible task and should be considered.

In addition, using arrest data as a measure of deceleration means that there is likely some level of underreporting of actual criminal behavior. Certain crimes committed might not come to the attention of law enforcement or might not result in an arrest even if reported. This will primarily matter if there is some reason to believe that the rate of underreporting of criminal behavior is different in the period before the criminal justice intervention compared to the period after the intervention.

De-Escalation

The idea of de-escalation is that a reduction in the seriousness of criminal behavior is a sign of desistance. For example, an individual who moves from repeat burglaries to support a drug problem to just arrests for drug possession or use may be in the process of desistance.

A hierarchy of crime seriousness is first needed to operationalize this measure. In several states, the sentencing guidelines use an offense gravity score (OGS), which is a score assigned to each crime in the state's crime code that indicates the seriousness of the particular offense. For example, Pennsylvania assigns every crime in its crime code an OGS between one and 15, where one indicates the least serious offense and 15 indicates the most serious offense. If a jurisdiction does not have the equivalent of an OGS associated with each crime, then the Uniform Crime Report's hierarchy of seriousness could be used.

Once a hierarchy of seriousness is established, a metric could be built to examine the average seriousness score (e.g., the average OGS score) of criminal behavior (e.g., arrest charges) in a period of time before the criminal justice intervention compared to a period of time after the intervention. Using the example above,

assume that the individual who had five arrests before going to state prison was arrested all five times for burglary, with an average OGS score of eight. Further assume that the five additional arrests in the five years after release from prison were all for possession of drugs, with an average OGS score of six. This two-point reduction in the average OGS score could be a metric indicating desistance. This measure of de-escalation has the same limitations as deceleration, however, as it could confound aging with the impact of a criminal justice intervention and potentially underreport actual criminal behavior.

Reaching a Ceiling

Reaching a ceiling is a restrictive measure of desistance in that it attempts to measure when criminal behavior has completely ceased. In the simplest terms, this measure is essentially the inverse of recidivism. For example, if recidivism is defined as any incident of arrest within a five-year follow-up period after an intervention, and an individual does not recidivate by the end of the five-year period, it would indicate that the individual has reached a ceiling of criminal offending and may have completely stopped.

This measure is limited because it is highly affected by the length of the follow-up period. If recidivism is measured in a five-year follow-up period and an individual does not first recidivate until the sixth year, this will result in a false desistance label. This again highlights the importance of selecting an appropriate follow-up period. Empirical data for a previous sample could be used to help inform the selection of an appropriately long follow-up period, as could the redemption literature discussed above. Depending on the measure of recidivism used, this measure may also underreport actual criminal behavior.

Desistance Measurement Example

An example that combines all three of these measures of desistance comes from a forthcoming recidivism report by the Pennsylvania Department of Corrections (PA DOC) (Pennsylvania Department of Corrections, forthcoming). One section of this report introduces measures of desistance based on deceleration, de-escalation, and reaching a ceiling. Based on the stringent criteria of reaching a ceiling within 15 years after release from PA DOC custody, only 20% of those released desisted. On the other hand, 90% of releases from PA DOC met one or more of the three measures of desistance when including deceleration and de-escalation. Other correctional jurisdictions could adopt this example to help operationalize and examine desistance.

Desistance-Focused Interventions

This section discusses criminal justice interventions that should be considered desistance-focused — in other words, policies, practices, or programs that can be connected back to one or more of the theories of mechanisms of desistance reviewed earlier. Table 1 also provides an overview of the interventions summarized below and outlines each intervention's connection to a theory of desistance. Further, the U.S. Department of Justice's CrimeSolutions (<http://www.crimesolutions.ojp.gov>) reviews the evidence for most of the interventions' effectiveness.

1. Cognitive Behavioral Therapy

One particularly successful criminal justice intervention is cognitive behavioral therapy (CBT). Stemming from the cognitive transformation theory of desistance, CBT focuses on changing unhealthy cognitive distortions and developing prosocial coping and problem-solving strategies. The CBT curriculum has many different name brands; one particularly widespread CBT curriculum is called "Thinking for a Change," which is offered by the National Institute of Corrections.

A large body of research, including several systematic reviews, has concluded that CBT effectively reduces recidivism (Lipsey, Landenberger, & Wilson, 2007). Further, a cost-benefit analysis of criminal justice interventions by the Washington State Institute for Public Policy (WSIPP) found that CBT programming returns \$6.31 in benefits for every \$1 spent (Washington State Institute for Public Policy, 2019). However, questions still remain about how generalizable the benefits of CBT treatment are in different settings and among different populations. For example, in a recent National Institute of Justice review, 25% of CBT program evaluations found that it was effective among juveniles convicted of crimes, but only one in 15 studies found it to be effective among adults convicted of crimes. CBT programming was also found to be most effective among persons convicted of sex offenses, but least effective among those convicted of domestic violence offenses (Feucht & Holt, 2016).

2. Motivational Interviewing

Another cognitive-based, desistance-based intervention is called motivational interviewing (MI). The purpose of MI counseling is to challenge an individual's resistance to change and to develop internal motivation for change. It is heavily influenced by the transtheoretical model of the stages of change (Prochaska & DiClemente, 1983). One particular program built on MI principles is called EPICS. In general, the evidence supports MI as a successful intervention for

Table 1: Examples of Desistance-Focused Interventions

Intervention Name	Theory of Desistance
Cognitive Behavioral Therapy	Cognitive Transformation Theory
Motivational Interviewing	Cognitive Transformation Theory
Prison Visitation	Informal Social Control Theory
Family Counseling	Informal Social Control Theory
Employment and Education	Informal Social Control Theory
Relocation	Informal Social Control Theory
Religious Services	Informal Social Control Theory
Programming for Young Adults	Biological Theory
Medication-Assisted Treatment	Biological Theory
Building Human Agency	Rational Choice Theory
Contingency Management	Rational Choice Theory
Deterrence-Based Approaches	Rational Choice Theory
Procedural Justice Approaches	Procedural Justice Theory
Destigmatization	Labeling Theory

reducing recidivism (Smedslund et al., 2011). However, EPICS is a relatively new program and does not have much evaluation research behind it yet.

3. Prison Visitation

Several criminal justice interventions are built around the sociogenic theories of desistance and rely on reinforcing informal social controls. For example, providing visitation for people in prison is, in part, built on the theory that maintaining important social relationships will translate into social support and social control after release from incarceration, which may, in turn, translate into desistance. In addition to in-person visitation and phone call policies, many correctional jurisdictions are experimenting with technological opportunities to support visitation, such as video visitations. Fostering opportunities for persons who are incarcerated to receive communication in other forms, such as letters and emails, is another way to strengthen social connections that may lead to desistance. Preliminary evidence suggests that in-prison visitation is associated

with reductions in recidivism; however, the research to date has yet to establish a causal impact of prison visitation on recidivism (Bales & Mears, 2008).

4. Family Counseling

To help reinforce important social relationships, correctional jurisdictions could provide two forms of relationship/marital counseling and parenting counseling. One form could provide counseling and practical skills to individuals who are already in a relationship or married or are parents to help strengthen these relationships. An innovative approach would be to have the spouse, partner, or child participate in the therapy session with the individual who is under the criminal justice system. Although a few correctional jurisdictions have experimented with this type of relationship counseling, virtually no evaluation research exists for determining its effectiveness.

The other form of counseling could focus on individuals who are not yet in a relationship or married or do not yet have children, but who want to eventually pursue one of these relationships. The goal would be to proactively instill skills that will help make those potential relationships successful in the future.

5. Employment and Education

Prior research has found that two particular mechanisms of informal social control — employment and education — lead to desistance. Many correctional systems already provide employment training and educational services. One frequently cited review of the research purports to find consistent evidence that in-prison vocational and educational programs are associated with reduced recidivism. However, the types of strong evaluations needed to establish causality are nearly nonexistent (Davis et al., 2013). There is also a high likelihood that the existing research is affected by a strong self-selection effect into these types of programs.

6. Relocation

One theorized mechanism of desistance involves changing environments and social settings that reinforce criminal behavior. Although returning home after release from prison might provide some level of prosocial support from family, it also might mean a return to a toxic environment where individuals actually encourage criminal behavior. A few studies have demonstrated that individuals who are relocated after release from incarceration show lower recidivism rates than those who return to their home community (Kirk, 2015; Nakamura, 2018). Clearly, interventions should be individualized, as it might be better for some to return home and others to find a new beginning through relocation.

One innovative study in Pennsylvania involved sending willing individuals to a halfway house after release from prison (Nakamura, 2018). Those randomly assigned to be relocated in a halfway house far from home had slightly lower recidivism rates than those assigned to a halfway house close to home. A willingness to be relocated might also be a type of motivation signal to change and desistance, as described in the previous discussion on signaling theory. Criminal justice systems should think creatively about how to support relocation for those who are willing and could seemingly benefit from it.

7. Religious Services

Correctional systems could provide religious programming to encourage desistance. To use the turning points language of desistance research, a religious conversion is a type of turning point that has properties in common with other turning points like marriage and employment. Obviously, participation in religious-based programs must be strictly voluntary and not compelled, but these types of programs may facilitate the type of turning-point conversions that could lead to desistance. Research to date is mixed on the effectiveness of in-prison religious programming and, once again, it is fairly weak on examining causality. Given the volunteer nature of participation in religious programs, there almost certainly is a strong self-selection effect.

8. Programming for Young Adults

Biologically informed interventions could also facilitate desistance. For example, recognizing that brain development continues until a person's mid-to late 20s, correctional agencies might consider providing separate housing and programming specifically for young adults. Treatment could be targeted toward specific stages of brain development for this group. An example of such a program is the Connecticut TRUE program (Chammah, 2018), which pairs mentors with young people who have been convicted of crimes to address age-appropriate areas of intervention such as life skills, educational assistance, and family assistance.

9. Medication-Assisted Treatment

Medication-assisted treatment is also increasingly being used with some effectiveness, specifically for the treatment of substance use disorder (Substance Abuse and Mental Health Services Administration, 2019). Substance abuse involves biological mechanisms that can affect or limit an individual's human agency. Treating substance use disorder may remove a major barrier to desistance. On the other hand, some research has shown that a subset of

individuals may desist from crime but continue to have substance use problems (Laub & Sampson, 2003).

Mental health problems may also limit opportunities for desistance. Medical and biological responses to mental illness may help alleviate these barriers to desistance. Some consider substance use disorder a form of mental illness, as it is classified as such under the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition. Improving mental health generally should assist in better decision-making, which, in turn, should lead toward a path of desistance.

10. Building Human Agency

Along the same lines of reinforcing human agency, correctional systems might also think creatively about how to allow persons who are incarcerated to make choices that could reinforce their confidence in their choice-making ability more generally. Individuals who believe they are not in control may benefit from having some form of control over choices that affect them while in prison. For example, systems might consider allowing individuals to provide input into their assigned prison or unit or their assigned cellmate. Many other small day-to-day choices might reinforce agency. Individuals with a stronger sense of agency (being able to control their own destiny) might be more successful at desistance. To date, correctional jurisdictions have done relatively little experimentation in this area.

11. Contingency Management

Prison is an artificial and controlled environment that does not allow for failure in any real way. It may be beneficial for prisons to instead mirror an outside-world environment where individuals, in part, fail or succeed based on the decisions they make. This is often referred to as “contingency management.” Systems could adopt innovative token management interventions where persons who are incarcerated receive rewards for desirable behavior and disincentives for undesirable behavior. There are many possibilities for how this might look in practice. Again, the focus is on building agency and reinforcing prosocial behavior, both of which have been tied to desistance. Relatively little correctional research currently exists in this area, and there is plenty of room for experimentation.

12. Deterrence-Based Approaches

One particular deterrence-based approach — referred to as “swift, certain, and fair” (SCF) supervision — could be classified as a negative contingency management program. SCF supervision forces external behavioral compliance

by providing immediate and consistently delivered, yet moderate, sanctions for noncompliance and rules violations. This theoretically translates into long-term desistance through behavioral patterning, with or without internalized change. It harkens back to desistance mechanisms targeted toward speeding up the “bottoming out” process and allowing individuals to fake it until they make it. SCF programs have been implemented in both community corrections contexts and prisons, with some evidence of success (Hawken & Kleiman, 2009; Hamilton et al., 2016). In substance abuse treatment, this approach has been referred to as “coerced abstinence.”

13. Procedural Justice Approaches

The “fair” component in SCF supervision relates to another mechanism of desistance called “procedural justice” (Tyler, 2003). The idea is that individuals will be more responsive to criminal justice intervention if they perceive that it will be delivered in a procedurally fair manner. Thus, procedural justice could increase desistance. Again, jurisdictions should think creatively about how to reinforce procedural justice and perceived legitimacy. At a basic level, taking input from persons who are incarcerated seriously should increase perceived legitimacy. Correctional systems should establish a procedure to allow them to report perceived unfair treatment.

To increase procedural justice, jurisdictions should also work to reduce unfair practices that result from inefficiencies in the system. For example, parole boards in many systems face delays in interviewing candidates for parole once they become eligible and delays in physically releasing those who have received parole approval. These delays can lead to frustrations with the system that carry into the community and impede desistance. In addition to improving parole and release processing, systems should establish fair procedures for reviewing and adjudicating charges of institutional misconduct. Procedural justice has implications for many aspects of the criminal justice system, which, in turn, may affect desistance.

14. Destigmatization

Finally, criminal justice interventions can focus on removing labels that impede desistance. Achieving redemption benchmarks should translate into opportunities for removing labels. For instance, several jurisdictions have passed legislation that allows criminal records to be expunged or sealed after a certain period of crime-free time.³

³ One example is Pennsylvania’s recently enacted “clean slate” law.

Eliminating reentry barriers, such as licensing obstacles, may also further the goal of removing negative labels. Some jurisdictions have experimented with the concept of reentry courts. Individuals are closely supervised post-release, and the court recognizes them through official “redemption ceremonies” when they meet certain benchmarks within the program. The research to date, however, has not found recidivism reductions from such an approach (Lindquist, Hassoun Ayoub, & Carey, 2018).

Adopting Desistance Concepts in the Real World

This final section focuses briefly on challenges jurisdictions may face when trying to implement desistance concepts in practice and offers recommendations for addressing these challenges.

Short Time Horizons

One of the first challenges is the political focus on short time horizons. Politicians serve limited terms before reelection and seek fast and immediate results. As previously discussed, desistance often necessitates long time horizons. The short time horizon of policy and politics is seemingly at odds with the long time horizon of desistance. For example, policymakers cannot afford to wait five years or more to receive results on the impact of the interventions they implement. Similarly, encouraging programs or policies that only pay off in the long term may not be worth it to policymakers and politicians looking for immediate results.

For these reasons, it is critical that risk assessment instruments, recidivism measurement, and rapid cycle experimentation remain important parts of integrating desistance principles into practice. Risk assessment instruments use a probabilistic (predictive) approach that allows desistance-focused resources to be effectively allocated and to make judgments regarding which individuals have likely desisted or are on a pathway of desistance without having to wait for a long period of time to observe actual behavior. Recidivism metrics are useful because they can be measured in shorter follow-up timeframes. Finally, models are starting to proliferate; these models run rapid cycle experimental and innovation testing in corrections without following traditional long timelines for results (Bucklen, 2020).

Budgets

The budget-driven nature of criminal justice agencies also presents challenges. Policymakers have to make decisions about how to allocate their budgets. Investing money now into interventions that have a chance of paying off

much later is a hard sell for them. Similarly, desistance policy often focuses on improving non-criminal-justice outcomes, with the promise that these outcomes will ultimately affect crime down the road. Policymakers must have a high degree of confidence that these other outcomes are not an end to themselves, but will improve the mission-critical goal of increasing public safety. Other outcomes may be laudable for improving individual lives, but they should be secondary goals for a public safety agency unless there is a high degree of confidence that they are causally linked to reducing reoffending.

Some politicians and policymakers have the opposite problem when managing tight budgets — they work under an implied theory that just doing more will improve results. Consequently, resources are uncritically targeted toward programs, policies, and activities that are presumed to further many types of goals related to desistance. Doing more is not always doing better, however. In fact, doing less may be more effective than doing more. In other words, some interventions can have no impact or, even worse, a negative impact. Focusing on a few programs that have been found to have strong impacts is preferable to uncritically implementing many programs, some of which have little to no effect. Importantly, desistance-focused interventions must be critically evaluated, a causal link to desistance should be established, and interventions should be revised or abandoned if they do not further desistance. This is challenging because it is often difficult to establish causal links for desistance-focused interventions. Further, if it is found that interventions are not effective but they seem appealing at face value, it is often hard for politicians and policymakers to abandon them.

For these reasons, randomized controlled trials (RCTs) and cost-benefit analyses must become two critical components of desistance-focused criminal justice practice. More RCT evaluations of desistance-focused programs and practices will build the strong evidence needed to give policymakers faith in allocating resources toward these interventions. As noted several times throughout this review, the evidence base for many existing desistance-focused policies and practices is thin. Researchers must pay more attention to the quality of evaluations to build strong causal links between programs and policies and desistance.

Similarly, cost-benefit analyses should accompany program evaluations. Too few cost-benefit analyses currently exist on programs and policies that target desistance or recidivism reduction. One exception is the WSIPP, which routinely updates benefit-cost ratios for a variety of criminal justice interventions (Washington State Institute for Public Policy, 2019). Policymakers need to know not only the program's effect in terms of outcomes, but also its return on investment. Some programs may produce significantly better outcomes but come at a cost that exceeds the perceived value of those better outcomes. Other programs may only marginally improve outcomes but be so inexpensive to implement that they are worth investing in.

Non-Criminal-Justice Outcomes

Criminal justice outcomes should remain the main focus of desistance. Criminal justice policymakers, by virtue of their specific public safety mission, are likely to show little concern for non-criminal-justice outcomes, such as employment and housing, unless there is a clear and convincing link between these outcomes and crime. For example, state correctional departments will likely not consider it their primary responsibility to make sure that individuals released from incarceration secure a job and stable housing unless they are convinced that this will lead to a reduction in future crime.

Many correctional agencies routinely report recidivism statistics. To highlight the connections between other outcomes and desistance, correctional agencies can incorporate a section on non-criminal-justice outcomes in their routine recidivism reports. For example, a recidivism report could include a section on post-release employment rates, drug relapse rates, rates of compliance with child support payments, health outcomes, and measures of attaining stable housing. A report that incorporates these non-criminal-justice outcomes will be able to show how recidivism rates are changing (or not changing) side-by-side with other outcomes. Accessing the necessary data to perform such an analysis might prove problematic, however. Often, government agencies are siloed and do not share data with one another. A key component of this recommendation is creating cross-agency data linkages. Interagency data-sharing agreements should be established to support such analysis.

Correctional agencies could also conduct a periodic survey of persons reentering the community to ask about their self-reported rates of reoffending and the factors that helped them succeed (or conversely, obstacles to their success). The “success group” could consist of those who have remained out of prison for a defined period of time and, for comparison purposes, the “failure group” could consist of those who are back in custody (e.g., for a parole violation). PA DOC conducted such a survey of persons who violated parole and those who successfully followed the terms of their parole (Bucklen & Zajac, 2009).

Communication

Desistance is a messy concept. Politicians and policymakers gravitate toward concepts that are simple to understand and explain. This paper has spent a significant amount of time describing some of the challenges in operationalizing desistance. Policymakers might have a hard time understanding, explaining, and implementing flexible concepts like intermittent offending and desistance as a process rather than an event. As such, we must develop simpler and better ways to operationalize desistance and better communicate desistance principles.

Criminal justice agencies might benefit from having staff dedicated to translating desistance principles into policy language and also translating policy concerns into desistance-focused concepts. This is known as “translational criminology” (National Institute of Justice, 2011). Agencies can facilitate translational criminology by hiring at least one full-time researcher who holds an advanced degree (master’s or doctorate) in the field and is closely connected to the academic environment. At the same time, he or she should be fully immersed in the agency as a practitioner and spend a significant amount of time learning the agency environment to best understand policy and practical realities. The researcher should be skilled at writing for a practitioner audience and at translating complex concepts into terms that are easy to understand. Alternatively, criminal justice agencies that cannot afford to hire a full-time researcher could partner with an academic organization to develop a researcher-practitioner partnership. The National Institute of Justice has sponsored such partnerships in the past.

Conclusion

Desistance is an important concept in academic criminology, but implementation into criminal justice policy and interventions has lagged. This paper discussed research on how desistance works, along with challenges and ideas for establishing operational definitions of desistance. It also provided some actionable guidance on what types of desistance-focused criminal justice interventions should be pursued. Translating desistance research into practice will continue to prove challenging, but it is a worthy endeavor for improving criminal justice outcomes.

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CHAPTER 5

International Perspectives and Lessons Learned on Desistance

Stephen Farrall

Introduction

In the years since monographs such as *Crime in the Making* (Sampson & Laub, 1993) have been published, there has been a tremendous research effort to further knowledge about why people stop offending. Although much of this research has been based in countries with well-established criminological communities (such as the United States, the United Kingdom, and a few other European countries), empirical studies have also been conducted in Brazil, Chile, France, Germany, Ireland, Israel, Spain, and Sweden, among others. Although the theoretical understanding of desistance from crime has advanced considerably — as acknowledged by the National Institute of Justice’s call for white papers in this area — a critical gap remains in our collective understanding about how this knowledge should be applied. Such knowledge is crucial because if key decision-makers are able to operationalize these insights into research-informed innovations, then future practice in crime prevention, sentencing, and the wider criminal justice system may be further improved.

This white paper explores how insights from desistance research have been used in the United Kingdom and, to a lesser extent, further afield. The paper begins

with a discussion of how desistance is defined and operationalized, followed by a review of the main associates and correlates of desistance. The paper then critiques many criminal justice systems' desistance-promoting elements, drawing on insights from England and Wales, Scotland, France, and Israel, as well as some experiences in North America. It finds that much of what criminal justice systems "do" is not conducive to supporting desistance. The final section — the main focus of the paper — discusses ideas for activities and procedures that are more likely to support and promote desistance. These ideas are drawn both from empirical studies and from the "philosophy" of many criminal justice systems and the ways in which it shapes desistance-related work.

Defining and Operationalizing Desistance

To desist is to cease from doing something. Thus, desistance from crime is the (assumed) permanent cessation of offending following a period of sustained offending. Laub and Sampson (2003, p. 21) provided an insight into the definitional and operational problems with this concept, writing, "Although it is difficult to ascertain when the process of desistance actually begins, it is apparent that it continues after the termination of offending. That is, the process of desistance maintains the continued state of non-offending."

Farrall and colleagues (2014, p. 27), on the other hand, operationalized desistance in their study as meaning "anything from a recent commitment to avoid further trouble (supported by evidence of attempts at behavioural modification) to several years of non-offending behaviour." Desistance, they added, is an "imprecise, fluctuating, and a mix of intentions and actions (or, perhaps more accurately, inactions)." Thus, definitions of desistance vary from study to study.

Desistance is a slippery concept, even by social science standards. Intending to inject more precision into definitional matters, Maruna and Farrall (2004, p. 174) introduced the concepts of "primary" and "secondary desistance." Primary desistance is desistance "at its most basic and literal level" and refers to "any lull or crime-free gap in the course of a criminal career." Drawing heavily upon Lemert (1951, p. 76), they argued that secondary desistance marks "the movement from the behavior of non-offending to the assumption of a role or identity of a non-offender or 'changed person.'" In secondary desistance, crime not only stops, but "existing roles become disrupted" and a "reorganization based upon a new role or roles will occur." Indeed, recent research (Giordano, Cernkovich, & Rudolph, 2002; Maruna, 2001; Shover, 1996; Farrall, 2005) provides compelling evidence that long-term desistance involves identifiable and measurable changes at the level of personal identity, or "the 'me' of the individual" (Lemert, 1951, p. 76; Maruna & Farrall, 2004, p. 174).

As a partner to these concepts, McNeill (2016) introduced the term “tertiary desistance” to refer to another phase in desisting from crime, namely the recognition by others (such as family members) that the individual has now ceased offending. This brings with it an increased sense of belonging for the person who desisted. Some have also referred to “supported desistance” or “assisted desistance” (Nugent & Schinkel, 2016) to refer to desistance that takes place or is initiated with help from a formal third party (such as a drug counselor or probation officer).

Why Do People Stop Offending?

Initially, age was seen as one of the key factors associated with desistance (Glueck & Glueck, 1937, p. 105). Although age remains a strong predictor, more recent research has pointed to additional processes.

In the 1980s, when research on desistance was still in its infancy, some adopted a rational choice perspective and argued that desistance was the result of decision-making (Cusson & Pinsonneault, 1986, represents a good example of this approach). More recent thinking holds that while decisions are important, they are unlikely to be sufficient on their own.

Highly regarded research argues that the relationship between the person who is desisting and wider society is crucial. Sampson and Laub (1993) argued that the bond between an individual and others in society is the cornerstone of desistance. Furthermore, they argued, both formal and informal social institutions “cement” the bond between the individual and society. These institutions include schools, families, and peer groups in early adolescence and employment, marriage, and parenthood in adulthood.

Maruna (2001, p. 7) pointed to another set of processes, arguing that “to desist from crime, ex-offenders need to develop a coherent, pro-social identity for themselves.” Individuals must find ways of “making sense” of their past lives to “redeem” and find value in lives that had often been spent offending.

Hence the key processes associated with desistance from crime appear to be related to:

- Marriage or partnership (including parenthood).
- Employment (or another legitimate role in society, such as learning or homemaking).
- Leaving the area where a person grew up or offended in the past.
- Aging (especially after age 25).

- Accommodation that is secure, safe, and away from others who may encourage offending.
- Finding a reason to stop offending.
- Making a decision to stop — and having this decision supported by wider institutions and individuals.
- Deciding “who” one wants to become in the future.
- Aspects of the criminal justice system that may assist desistance (others find that these stigmatize and hinder desistance).
- Religious conversion (in some cases).

Some research has examined variations in these processes by ethnicity (Calverley, 2013) and gender (Rodermond et al., 2016). Although most of these processes remain, some become more important for certain groups. For example, religious beliefs play a stronger role in desistance for some religions than others (Calverley, 2013). However, there have been too few studies on variance to conclude how gender, ethnicity, age, and other factors (such as the nature of the offending career or the country in which the individual lives) interact to shape processes of desistance from crime.

Some cross-national studies suggest variations in processes of desistance that appear to be consistent with national-level social, economic, and cultural variations (Segev, 2020; Österman, 2018; Farrall, 2019). For example, when comparing processes of desistance for women in Sweden and England, Österman (2018) found that the Swedish welfare system enabled women in that country to desist from crime more speedily and easily than the English women. Alternatively, Segev (2020) found climatic and cultural factors when comparing processes associated with desistance in Israel and England. Persons desisting in Israel spent more time out of their homes and were better able to build bridging social capital than their English counterparts, which helped in their search for meaningful work.

Recent studies (F.-Dufour & Brassard, 2014; Farrall et al., 2014) have reported that different groups may have different routes out of crime. F.-Dufour and Brassard (2014), for example, found that those who started offending at a younger age tended to come from more disadvantaged backgrounds and, contrary to Sampson and Laub’s (1993) thinking, rejected conventional ties and informal social control. Those who started later in life (in their 30s) and came from more privileged backgrounds tended to favor psychosocial interventions.

Critiques of Existing Provisions and Policies

A methodological divide exists in studies of desistance. Some researchers have examined why people in community samples start and then stop offending (e.g., Farrington, 1992). Others have recruited samples from within the criminal justice system. Farrall, for example, studied desistance and persistence among a group of men and women starting probation supervision in England. He found that the factors that assisted desistance — such as families and employment — were not the factors on which probation officers worked with their caseloads (Farrall, 2002, p. 220). Staff focused on thinking skills or exploring why the individual had started offending, rather than on what would help him or her desist. Farrall (2002, p. 220) concluded that probation was (at that point) “offending-related” and not desistance-focused.

Other cases have found that criminal justice systems tend to view people who have been convicted of crimes as the embodiment of risks that need to be tackled and dealt with. This is seen as the consequence of risk assessment tools, which inadvertently encourage probation staff to view those on probation as people who only have risks, rather than people who may have strengths that can be harnessed (a point discussed later).

Criminal justice systems’ recent reliance on longer and more punitive sentences — especially if they involve imprisonment or formal debarring from, for example, voting — can provide additional hurdles to those wishing to desist. In a fast-moving economy in which new technologies have a rapid turnover, skills are easily lost while individuals are in prison and not working (or working, but not using electronic devices as part of their work). Insurance systems may also inadvertently encourage employers to recruit from outside of this population to achieve lower rates of insurance premiums. Reductions in the type of employment that might suit those embroiled in the criminal justice system — who may (typically) be males from lower socioeconomic groups and have lower educational qualifications and poor IT skills — have not helped some sections of the pool of people who want to desist from transitioning away from offending.

As Shover (1996, p. 179) observed, “In many [U.S.] states, as matters stand today, the heaviest penalties fall at the point when many offenders are on the verge of desisting or shifting to less serious forms of crime. Heavy prison sentences can exact such a toll from offenders that they miss all timetables for achieving success legitimately.” As such, the empirical studies on desistance from crime point not simply to a set of correlates and associates of desistance, but to a wider set of values and system philosophies that can hinder desistance from crime at a systemic level.

Proposals for Future Interventions and System Philosophies

The remainder of this paper focuses on proposals, policies, and practices that have been made or adopted to improve an individual's chances of desisting from crime. Where possible, an assessment of their impacts is noted. The paper discusses both specific intervention programs and the philosophies of criminal justice systems.

Key social institutions like family and employment are important, and common ideas — such as the concept of “forgiveness” and individual change — have become culturally embedded. Further, many aspects of the criminal justice systems in the United States and the countries discussed below are similar (such as the existence of both prisons and community sentences). Therefore, colleagues in the United States could relatively easily adopt these proposals, policies, and practices, either in part or in whole.

Philosophies and General Principles

In addition to studies and publications on specific interventions that embed desistance ideals into practice, there is a series of publications that has articulated visions and principles that the criminal justice system should try to embody. Some researchers (e.g., Farrall, 2002) have argued that the criminal justice system should move away from thinking of its work as being offending-related toward being desistance-focused because one of the ultimate aims of supervision — as a sentence or part of another sentence, such as parole — is to stop future crimes from being committed. Farrall argued that systems should assess what people require in their lives to ensure that they stop offending and then attempt to produce these features in such a way that people actually *do* stop offending. This approach has a number of similarities to strengths-based perspectives (Ward & Maruna, 2007).

Strengths-based approaches offer an alternative to needs-based or deficits models, which inadvertently view those being supervised or worked with as having deficits in their social or personal lives that need to be remedied or controlled (Maruna & LeBel, 2003). The broad family of strengths-based approaches focuses on the strengths that individuals possess, rather than on their deficiencies. Strengths may simply be things that are not risks — such as a strong bond with an elderly, law-abiding relative — or things that might positively assist them — such as a strong bond with law-abiding family who might be able to offer, for example, routes into employment or secure accommodation. The central aim is for individuals to “earn their way back into society” in a full, participatory manner — rather than simply being supervised and controlled in such a manner that offending on their part is impossible. One of the key aims,

therefore, is to allow individuals to demonstrate their “true” inner character, rather than being characterized as a “bad” person (Maruna, Porter, & Carvalho, 2004).

If individuals who are desisting are able to help others (e.g., via engagement in voluntary service), this can transform receivers of help into givers of help, which, in turn, may assist their own positive self-identity. In addition to helping individuals desist, the aims are to communicate to a wider community that the person has ceased offending, is (therefore) worthy of support, and has something to offer to others. The perspective is resolutely future-oriented — focused on what the individual who desisted can offer in the future — rather than focused on past mistakes. Both strengths-based and desistance-focused approaches share some similarities — they are future-oriented, less concerned with risk, and more concerned with rehabilitation.

How would these principles work in the United States? Recently, the United States has chosen to go down the route of very high rates of imprisonment; however, this has not always been the case. Until the early 1980s, U.S. imprisonment rates were far lower than they are today. Some of the programs and projects outlined below have operated in prisons, others have been run in the community, and still others have tried to ease the transition from imprisonment to living in the community. The current high rates of imprisonment need to be kept in mind when assessing the interventions below because many operate in criminal justice systems that are less punitive than the one currently adopted in the United States.

Moving closer to the delivery of working practices associated with these perspectives, McNeill (2003) suggested that there are two elements to desistance-focused work: (1) the assessment and planning phase and (2) the actual work. In the assessment and planning phase, assessments should be individualized and related to the specific situation of each individual. This work, argued McNeill, should be focused on levels of personal maturity, changing social bonds, and the attitudes toward and motivations surrounding crime, as well as the narrative constructions of individuals’ past actions and sense of self. At this stage, the criminal justice worker and the person on probation jointly assess how each of the above can — or might in the future — help or hinder an individual’s prospects of desisting. Do any of them offer “a hook for change” (Giordano, Cernkovich, & Rudolph, 2002)? The worker and the person on probation need to assess the extent to which these areas are “pulling” in the direction of desistance. Those areas that are will need to be supported. Those that are not may be harnessed to do so, and those that may likely lead to offending will need to be mitigated or defended against. The aim is to reinforce positives and challenge negatives.

McNeill (2003) further suggested that interventions focus on motivations, attitudes, and thinking and values. The aim is to work with families (where

appropriate), find suitable accommodation, and develop human and social capital. Writing with a former criminal justice social worker, McNeill suggested a number of principles when undertaking interventions (Weaver & McNeill, 2007):

- Be realistic. Relapse is common, and change takes time. This means that patience is required by criminal justice staff, both those working with people who want to desist and those who are employed in the sentencing of relapses that result in offending.
- Favor informal interventions over formal ones because informal interventions can be more flexible and tend to be less stigmatizing. Formal interventions can also create further formal sanctions if transgressions occur.
- Avoid imprisonment as a sentence in many cases.
- Build good relationships between formal criminal justice organizations and charities and societies that work with persons convicted of crime who have completed any court-ordered punishment.
- Recognize that no two individuals are the same, so a “one size fits all” approach will not work as effectively as approaches that are tailored to the individuals and their pasts, strengths, and desired futures. In short, interventions must be individualized.
- Work with communities. Social contexts are as important as individual contexts.
- Avoid negative terminologies that stigmatize.
- Promote redemption.
- Punishments must end at some point. Recognize and respect these endings.

Barry (2000), inspired by the principles above and her own social work experiences, additionally suggested that criminal justice workers:

- Get to know persons on probation.
- Offer practical help.
- Be encouraging.
- Allow persons on probation to talk about what *they* want.

As part of a United Kingdom Economic and Social Research Council *Insights* paper, McNeill and colleagues (2012a) further argued that people working in the criminal justice system should:

- Work *with* people, rather than work *on* people (i.e., avoid thinking of people as things that need to and can be “fixed”).
- Recognize that relationships matter to persons who desist and harness them to support desistance.
- Try to maintain hope as well as motivation. Hope is a key variable that can support individuals during periods of difficulty and change because it sustains their longer-term goals.
- Develop human capital (the skills needed to complete a task) as well as wider social capital in order for these skills to be employed.
- Avoid identifying people by the behaviors we wish them to leave behind (e.g., “offender”).

In response to the *Insights* paper (McNeill et al., 2012a), Bottoms and Shapland (2019) suggested that criminal justice system staff help people change their daily routines and practice newly developed social identities (such as “parent” and “employee”) to facilitate desistance (p. 257). They also suggested that local criminal justice systems and those delivering services develop 24/7 support services for people facing temptations (Bottoms & Shapland, 2019, p. 257), an idea based on the insights regarding temptations and the loss of motivation developed by Halsey and colleagues (2016). These 24/7 support services could consist of duty staff who are on call outside of normal office hours or a list of people whom the individual could phone or ask for help when needed.

McNeill and colleagues (2012b) argued that correctional services — and judicial systems more generally — must find ways to recognize and “certify” progress and change. In doing so, they should use language that conveys belief in the possibilities of “redemption,” rather than language that reinforces offending identities (Maruna, 2001; Maruna & LeBel, 2003; Maruna, 2011). Examples of these decertification processes are discussed below.

Some of these suggestions will not be easy for individuals or organizations to accept. The criminal justice system is not good at acknowledging that change is a process and there will be episodes of relapse. When people (re)offend, there are often victims who want to see some sort of redress, reparation, and, in some cases, punishment. We cannot “turn the other cheek” to all crimes, especially if the person has offended previously. Some offenses will be so harmful to others that imprisonment cannot be avoided. These issues aside, it is still the case that many people seeking change often relapse in some way and that the process of change will not be neat or linear. The goal would be for criminal justice staff to assess the extent to which an offending episode is part of a process of change, as opposed to a major impediment to the process.

Moffatt (2014, pp. 10-11) argued that management culture in the criminal justice system must accept the main goal of assisting caseloads. Critiquing changes to the English and Welsh criminal justice system, he wrote:

The demand to reach targets affected the working culture within probation. A new level of managers was recruited to deal with the influx of accredited programmes, many of whom did not deal directly with offenders. They were seen as ‘inordinately obsessed’ with meeting targets and practice becoming secondary as ‘it wasn’t their concern.’ Little thought was given to improvements and understanding what constituted good probation supervision. Respondents felt that ‘skills were marginalised’ as a culture of self-defence became the norm, ‘the constructive side of probation began to play second fiddle to the oversight side.’ Frontline practitioners, especially those new to the service, were encouraged to believe if an offender completed a programme they would change. Probation officers stopped home visits and talking to families and in the eyes of some ‘actually didn’t help people.’

Moffatt’s summary continued (2014, p. 11):

Probation lost the desire and motivation to work with offenders leading to a loss of core values, and case management became ‘an administrative function rather than a therapeutic or change focused one.’ Service users viewed probation as ‘an organisation that trips you up and wants to catch you out rather than wanting to help you.’

The underlying message from the above is possibly that even those most entrenched in criminal lifestyles should, at least, be given the hope that change is possible and there is a future for him or her without crime. This notion appears to be sorely lacking in current experiences of supervision, as noted by one of the people Farrall interviewed for his study of the impact of probation supervision on the lives of those being supervised (Farrall, 2002, p. 227):

Something to do with self-progression. Something to show people what they are capable of doing. I thought that that was what [my Officer] should be about. It’s finding people’s abilities and nourishing and making them work for those things. Not very consistent with going back on what they have done wrong and trying to work out why — ‘cause it’s all going around on what’s *happened* — what you’ve already been punished for — why not go forward into something ... For instance, you might be good at writing — push that forward, progress that, rather than saying ‘well look, why did you kick that bloke’s head in? Do you think we should go back into anger management courses?’ when all you want to be is a writer. Does that make any sense to you at all? *Yeah, yeah. To sum it up, you’re saying you should look forwards not back.* Yeah. I know that you do have to look back to a certain extent to make sure that you don’t end up like that [again]. The whole order seems to be about going back and back and back. There doesn’t seem to be much ‘forward.’

Reflecting on the wider climate's impact on desistance opportunities, Shover and Henderson (1995, p. 243, emphasis in original) commented that:

[Current repressive crime control policies] ignore entirely the theoretically obvious: Offenders' behaviour can be changed not only by increasing threat but by also increasing *legitimate opportunities*. It is important to make this point if for no other reason than the fact that increased legitimate opportunities extend the choices to offenders

Policies, Practices, and Procedures

This section explores studies (sometimes evaluations) that examine interventions, policies, and practices that could assist desistance; they do not always explicitly refer to desistance as a key organizing framework. Nevertheless, even those that do not embrace this terminology have many features in keeping with the desistance-focused or strengths-based perspectives.

This section focuses on four broad areas: changing the assessment lens; strengths-based opportunities to give back; building and supporting jobs, homes, and relationships; and certifying and recognizing change. Where possible, examples of projects that reflect these areas are provided. However, not all of these programs were evaluated. In some cases, assessments that were performed do not meet the highest standards of empirical social science research, as they were sometimes run by practitioners and did not always compare against control or comparison groups. Nevertheless, these schemes provide some clues to interventions that may assist desistance.

Changing the Assessment Lens

The ways in which needs assessments are conducted can be changed to identify an individual's strengths, such as a strong relationship with law-abiding individuals or an interest or hobby that would allow him or her to build ties to other law-abiding individuals.

Most risk assessment tools (such as SAPROF or SARN-TNA) ask criminal justice staff to score various aspects of an individual's social and personal circumstances in terms of their risk of further offending. The scales typically run from 0 (no risk) to 10 (high or severe risk). This approach encourages the staff member — and the person being assessed to some extent — to think of the person as the physical embodiment of these risks. Strengths are neither identified nor officially recognized.

One way to alter this would be to extend the scale from -10 (a severe risk) to +10 (a strength), with 0 representing a neutral point, something that is neither a risk nor a strength. Thus, the person being assessed is viewed as having strengths and

these strengths are identified so that a program of planned work can focus on their positives.

Strengths-Based Opportunities To Give Back

Many individuals want to give back or make amends for past failings and offending. At an individual level, this can be achieved via sponsorships to complete marathons, for example, with the money going to a good cause. In other cases, this can be arranged at an institutional level. Farrall and colleagues (2014) found that such desires to undertake and experience voluntary work are related to desistance.

Citizens Advice Bureau Employment Scheme

Burnett and Maruna (2006) reported on a scheme run by a local Citizens Advice Bureau in the United Kingdom. Citizens Advice Bureaus offer free advice and advocacy services relating to legal matters to anyone who requests them. These services are offered over the phone and in person at a number of locally based centers.

One center, which was struggling to cope with the volume of calls it received, approached a local open prison — that is, a prison that accommodates low-risk individuals, often near the end of their sentences — to see if it could help. The prison released these individuals on a temporary license to answer calls at the center. Their skill base was refreshed and increased, and they were reacclimated to a working environment. They reported that it was a destigmatizing experience, as well as one that helped create civic values and feelings of having given something back to the community.

Building and Supporting Jobs, Homes, and Relationships

In the mid-1990s, Laub and Sampson were asked to imagine the policy implications of their research. In Laub et al. (1995), they suggested two key ways of turning what we know about why people stop offending into workable policies:

1. Improving an individual's chances for employment. They suggested that education courses and relationships with local employers need to be developed so that individuals who formerly offended or were formerly incarcerated and others in recovery are able to secure meaningful employment.
2. Improving access to spouse and parent training programs so that families stand a greater chance of remaining intact and, therefore, acting as a barrier against reoffending.

Both of these policies were direct follow-ons from their study of why men in Boston ceased offending in the 1930s. Although there is much to commend in these two seemingly very basic initiatives, they deal with human lives that were played out over half a century ago. Nevertheless, as we shall see below, the topics of family and employment are recurrent ones in this strand of work and thought.

Sarno and colleagues' (2000) evaluation of two employment schemes run by probation services in England in the late 1990s is one example of a study that, while embodying many of the core principles of desistance, did not explicitly locate itself within this tradition. Published in 2000 — just as research and thinking on desistance, especially in the United Kingdom, was to be given a massive boost from studies by Maruna (2001) and Farrall (2002) — their evaluation showed the extent to which sensible policies can be (and were) designed without reference to desistance.

Sarno and colleagues (2000) examined two highly innovative probation-based employment and training programs in southeast England. One, called ASSET, was based in London, and the second, called Springboard, was based in Surrey. Both were established in early 1997 and ran for two years. They involved a similar set of services offered to those being supervised by the two local probation services. This included advice and guidance, training, work placements, mentoring, and the provision of employment opportunities. Both programs were primarily designed to improve the employment and training prospects of unemployed persons on probation who were being supervised (the thinking was that employment would reduce the chances of further offending).

ASSET

The ASSET project (run by what was then Inner London Probation Service, ILPS) worked with young people (ages 16-25) being supervised in two inner London boroughs. It was a stand-alone organization that provided one-to-one support and guidance to just over 750 persons on probation referred by ILPS. The key aim was to provide them with the skills and direct work experience needed to subsequently secure meaningful employment. It offered them travel grants, clothing, equipment, and course fees. ASSET stood apart from other probation-run employment, training, and education schemes at that time because it provided:

- A support program that offered basic skills provision.
- Links with local training providers.
- Links with the Prince's Trust, which ran a business start-up program.
- Mentoring.

Among both probation staff and the persons on probation, there was a general feeling that there should be more programs like ASSET. The probation staff who had contact with the scheme spoke highly of both the project staff and the program more generally. Many probation staff felt that ASSET complemented their work because it offered specialist expertise that they could not offer. Meanwhile, many of those supervised felt that ASSET and the wider project had a positive impact on their lives.

Although 43% of the participants were reconvicted within a year of first contact with ASSET during its first year of operation, this compared favorably with the number for those who were referred to ASSET but did not attend (56% were reconvicted within a year). Additionally, participants who were reconvicted were slower to reoffend (151 days) when compared to nonattendees (132 days).

During the period assessed by Sarno and colleagues, individuals referred to ASSET obtained 90 jobs and 12 participants gained national vocational qualification. Research suggested that many of the participants felt their knowledge, confidence, motivation, and employability had increased (Sarno et al., 2000).

Springboard

Springboard, which operated a recycling business, offered an alternative model. This initiative aimed both to offer “sheltered employment” for those on probation who were not yet ready to enter the formal job market and to generate money for the Springboard Trust, which owned the business. Springboard collected a range of used items — used toner and ink jet cartridges, plastic waste, aluminum foil, computers, and office furniture — which was then refurbished by Springboard employees and those referred by Surrey Probation Service. The business also refurbished donated bicycles and made them available to the persons on probation. In addition, Springboard offered advice and support to those who wanted to become self-employed.

In interviews with a sample of persons on probation who were referred to Springboard, few attributed gaining work directly to Springboard. However, many felt that the help they had received had a positive effect on their employability and accommodation status. About 32% of those referred to Springboard in the first year of operation were reconvicted within 12 months. This rose to 45% for 16- to 25-year-olds (Sarno et al., 2000).

Probation staff were initially skeptical. However, over time they came to value the program’s work and praised the commitment of Springboard’s staff. Interestingly, Springboard’s staff was most appreciated for its help with housing. (Surrey is an especially affluent part of the United Kingdom and, as such, affordable housing is scarce and in high demand.) This suggests merit in a holistic approach

that addresses accommodation and leisure needs as well as employability, employment, and training.

France has used similar schemes. The programs are run by Foundation Emmaus, which was created by Abbé Pierre, a priest who worked to support people who were homeless in the 1950s.

Working With Persons Incarcerated To Secure Future Employment

Some employers in the United Kingdom actively recruit employees from those serving prison sentences. Possibly the most famous is Timpson, which runs an extensive network of cobblers and locksmiths. The Timpson Foundation has created a series of training academies inside prisons, which train persons who are incarcerated and give them meaningful work rather than menial tasks. When these individuals are released, they are fully trained and able to work in Timpson's high street shops. Someone from the Timpson Foundation often meets individuals at the prison gates as they are released, then introduces them to their new work colleagues and provides them with a uniform, lunch, and time to settle into their new role. This scheme also applies to those released on temporary license, or "day release" — persons who leave prison in the morning, work in one of Timpson's shops during the day, and return to prison at the end of the day.

The Timpson Foundation argues that their training academies allow individuals to feel valued and part of the Timpson team, thereby restoring confidence and self-esteem. It estimates that it has a 75% retention rate for staff recruited from prisons. Other firms have copied this approach to training and recruitment.

Jobs, Friends, and Houses

Jobs, Friends, and Houses — run by a charity based in Blackpool, England — trains people in recovery or on release from prison in a range of building trade professions. The aim is to employ them to help renovate and lease domestic properties in the Blackpool area.

An evaluation emphasized the extent to which the program developed its employees' social and human capital (Hall, Best, & Musgrove, 2019). The scheme used prominent logos on its vans and uniforms to publicly demonstrate that persons who were formerly addicted to drugs and those who were formerly convicted of committing crimes could perform socially beneficial roles in the local community. The program also gave employees a nondeviant sense of identity and meaningful activities outside of work. It provided a social network, which extended to other professional and community groups that could support employees' needs and recovery processes. By creating legitimate identities in a local area, the scheme helped individuals in their journeys away from crime. Many employees reported that Jobs, Friends, and Houses had played a pivotal

part in their recoveries, with reductions in offending and substance use outcomes noted (Hall, Best, & Musgrove, 2019).

Data from a 12-month follow-up study of participants suggested that there had been a 94% reduction in recorded offending rates for the sample as a whole. It also showed an increase of more than £25,000 of tax and national insurance paid by sample members; dramatic savings in costs for mental health, primary care, and emergency services (totaling about £15,000 for the first 12 months); and annual savings of approximately £3,000 per person per year in terms of housing welfare (see Best, Beswick, & Walker, 2016).

Kirkham Family Connectors

Kirkham, a prison in the English county of Lancashire, recognized that one of the problems facing men on release relates to repairing damaged family relationships. If repairing such relationships proves to be difficult, the men may turn to their peer group for support. Since many members of their peer group may either commit crime themselves or be people with whom they had offended, this could potentially lead to further criminal behavior.

Kirkham Family Connectors sought to empower the families of small numbers of men facing release from prison at about the same time so they could access support for their returning family member. The families, who were formed into cohorts of six or seven, were first encouraged to assess the employment, training, recreation, peer networks, and volunteering experiences of their own returning family member. Next, they were asked to think of who could assist them in their existing social network and which new connections they would need to forge. In a subsequent session, they were asked to reflect on how they had used existing networks and forged new ones. The families exchanged barriers and ways to overcome them in group sessions. Over time, those involved moved from helping themselves to helping each other, thus increasing their social capital. Evaluations suggested that the program had increased the confidence of families to seek out support for their returning family member and increased their social capital, well-being, and sense of hope (Best, 2019).

A similar idea is the prison-based “homework club,” where children take their school homework into prison and complete it with their parents who are incarcerated. Such a scheme is being run in England at HMP Wymott.

Restorative Justice Programs

The schemes above — with their emphasis on people in the individual’s immediate circle of friends and family members — share much in common with restorative justice programs. Restorative justice sessions include people who are there as supporters; these individuals may serve as potential resources upon which the person can call. The person who offended often apologizes and

makes and commits to plans for “giving back” (either to the victim or some other entity). Robinson and Shapland (2008) said that restorative justice both embraces aspects of desistance work and provides a path toward desistance, in that the conferences allow participants to talk about the next few months of their lives (Robinson & Shapland, 2008, p. 348) and build social capital (see also Farrall, 2004), based on their evaluation of a series of restorative justice programs in England.

Israeli Rehabilitation Ranches

In Israel, rehabilitation ranches were run for families with a history of physical abuse. For example, a parent (who had been convicted of abuse) and one of his or her children (who had been abused) spend the day at a rural ranch looking after either a dog or a horse. When they arrive, they must choose which animal they will look after — meaning they have to consider the other’s preferences (for example, one of them may not like dogs). They then spend the day together looking after the chosen animal — grooming it, bathing it, feeding it, playing with it, and walking it. This relaxed time spent together focused on the same cooperative task increases the bond between the parent and child and allows them to talk about the concept of “caring.”

Such programs can be redesigned to rebuild relationships between, for example, parents and children who have had prolonged drug addictions, particularly in cases where the child stole from the parents or became estranged from them. They can also rebuild relationships between persons who were formerly incarcerated and their partners and children following separation during periods of custody. Similar schemes exist in France, although they do not presently include family members.

Circles of Support and Accountability

Circles of Support and Accountability partner with English police, probation services, and local public protection teams as well as other professionals working in the field of child protection. They work mainly with persons convicted of sexual offenses.

A Circle of Support and Accountability consists of a group of volunteers (usually four to six) from a local community who form a “circle” of support around an individual who has been found guilty of a sexual offense (the “core member”). The circle provides a supportive network for the core member, but also requires the core member to take responsibility for his or her risk management. For example, circle members help the core member develop his or her social skills, find suitable accommodation, and develop appropriate hobbies and interests. All of the volunteers are informed of the core member’s past offending. The circle’s main role is to help the core member settle into the community, but it also helps

the core member recognize the patterns of thought and behavior that could lead to reoffending.

The core member is included in all decision-making and signs a contract committing to the circle's aims. Each circle meets regularly (usually weekly, initially). Between meetings, the volunteers might also have face-to-face or phone contact with the core member, if needed. The life span of a circle is initially 12 months, but it may be extended if there is a perceived need for continued support. The expectation is that the circle's active involvement will reduce over time as the core member develops other support networks.

The program has six values:

- **Safety:** The aim is to reduce the incidence of victims in the future.
- **Responsibility:** Individuals and organizations are held accountable for their actions.
- **Inclusiveness:** Risks are best managed through processes of inclusion rather than exclusion.
- **Community involvement:** Community involvement is an important part of rehabilitation.
- **Growth and learning:** Given the appropriate supports, people can grow, learn, and change their behavior.
- **Individuality and respect:** Treating people with humanity and respect is a key part of assisting their rehabilitation.

Although Circles of Support and Accountability have been used for those convicted of sexual offenses, they may potentially be extended to include people convicted of other offenses.

Working With First Nationals

Colleagues in Winnipeg, Canada, evaluated a program that works with first nationals (see Deane, Bracken, & Morrisette, 2007; Bracken, Deane, & Morrisette, 2008). The scheme, called Ogijiita Pimatiswin Kinamatwin (OPK), works with Aboriginal persons involved in gangs who show a desire to move away from gang involvement. Interestingly, one can join OPK and remain a member of the gang — a recognition of the transitory nature of desistance.

OPK was formed following a request from the leaders of one of Winnipeg's better-known street gangs. Its members were in their 20s and had young children. They were tired of contact with the police and of being imprisoned, and they were looking to lead more "legitimate" lives.

OPK works with men who have recently been released from prison after serving sentences of over two years. The men have been involved in street gangs, have typically been involved in low-level drug dealing and inter-gang violence, and were imprisoned for offenses such as manslaughter, weapons offenses, and drug trafficking. OPK, along with first nationals who formerly committed crime, provides training and work in an inner-city not-for-profit housing project. OPK also provides Aboriginal cultural learning, counseling, and referral to educational opportunities. The program seeks to (re)educate the men about their cultural identities and the harm that crime causes to first national communities. It also seeks to alleviate blame from the individuals caught up in crime by highlighting the ways in which the dominant white cultures of Canada have marginalized their communities.

Certifying and Recognizing Change

In addition to schemes that aid relationship-building and the transition into employment and homes, the criminal justice system can take other actions to reform its own internal workings.

Decertification Programs

Building on the insights of labeling theories and interactional sociology, it has long been recognized that the criminal justice system regularly labels individuals (for example, “victim” or “offender”) and that such labels — especially negative ones — are hard to shrug off. In response, some have suggested that the criminal justice system create decertification processes. For example, those who have been sentenced might return to court to mark the end of their sentence and have their progress toward change celebrated and encouraged. If possible, people who will be sentenced later could be present at these end-of-sentence sessions to show them that change is possible and that they, too, might be able to look forward to a similar celebration. Maruna (2011) suggested that certificates of rehabilitation be awarded as part of these sessions, in the way that awards are given at university graduation ceremonies.

Judicial Rehabilitation

In France, criminal records are organized and structured so that they do not hinder access to employment. They are stratified into three groups called “Bulletins.” The highest two tiers are accessible only to the courts and other public services. The third (and lowest) tier is made public. A potential employer might ask prospective employees to provide a copy of the third tier (Bulletin 3), although employers seldom ask for it in practice. However, unlike Bulletin 1 and Bulletin 2, Bulletin 3 contains very little information. For example, prison sentences of up to two years — which are the vast majority of custodial sentences in France — are not mentioned in Bulletin 3.

Furthermore, old court files are destroyed after a certain period of time (Herzog-Evans, 2011). This means that previous convictions cannot be used in some sentencing decisions or to bar people from certain forms of employment. Those who are convicted can ask the courts not to formally record the conviction, which again allows greater chances of employment. Courts can also agree with the individual that achieving some form of behavioral change will signify his or her “redemption.”

Maruna (2011, p. 111) described the possibilities of these approaches for the United States. Maruna wrote that a “certificate of rehabilitation”

... would function as a ‘letter of recommendation’ (Lucken & Ponte, 2008) that can be used with licensing agencies, employers and state officials. When asked if he or she has ever been convicted of a crime, the individual does not respond ‘no,’ but rather ‘yes, but the conviction has been expunged and I have received a certificate of rehabilitation.’ The policy, therefore works ‘not by trying to conceal the fact of conviction, but by advertising the evidence of rehabilitation’ (Love, 2003: 103).

Maruna (2011, p. 112) also referred to a “roll of honour,” whereby the records of persons who were formerly incarcerated would include information about the extent to which they broke institutional rules or were rewarded for good behavior and estimate how likely they are to remain out of trouble. Such approaches have much in common with Clean Slate Acts that some U.S. states have passed in the last few years.

The Road From Crime

In an Economic and Social Research Council-funded project, McNeill and colleagues made a 50-minute documentary film that was shown to stakeholders in British criminal justice settings.¹ The film served as a platform for discussing how probation services could be improved to better facilitate desistance. Below is a summary of the recommendations generated by these discussions, which involved staff, people from charities, service users, former service users, and the families of service users in Glasgow, Belfast, Sheffield, Liverpool, and London.

1. Make greater use of former service users

Both current and former service users could co-design programs, career routes for persons who have reformed, and mentoring schemes for those being supervised or transitioning into different roles in the organization (e.g., from service user to service provider).

¹ The film, which includes an interview with former NIJ Director John Laub, is available at <https://www.iriss.org.uk/resources/videos/road-crime>.

2. Reduce reliance on imprisonment

There was a strong sense — even among prison staff — that prison was being used too much. One interesting idea was to bar magistrates — who can only sentence people to a maximum of two years' custody in England and Wales — from imposing custody at all. The aim was to reserve prison for the most serious individuals.

3. Re-orient the philosophy of probation

Many felt that probation services in England and Wales and criminal justice social work departments in Scotland should focus on the service user's strengths and aspirations by relying more on community involvement and creativity.

4. Reconnect probation to local communities

As a result of increased workloads and the computerization of assessments and case management, probation staff have become mainly office-based. This was seen as a weakness in the current provision. Probation staff were encouraged to spend less time in the office and more time in the community so they could learn about local job opportunities.

5. Mobilize wider support networks

For many, employment offers a useful way out of offending. Thus, it was suggested that quotas for employing persons who formerly offended be set for employers over a certain size. Numerous issues would clearly need to be addressed before developing such a program (whether employers have suitable work, for example). However, reductions in business taxes could possibly be provided to employers (such as Timpson) who show a commitment to working with disadvantaged groups in society.

6. Focus on positives, not negatives and risks

Again, there was a sense that assessments should focus on strengths rather than deficits and that assessment systems should be redesigned to embrace positive aspects of an individual's life.

7. Supervision, release, and reintegration

It was also felt that criminal justice systems must find ways of showing that change is possible and highlight the ways in which persons who have desisted can contribute positively to society. Local news media could play an important role in this area.

8. Redraft the Rehabilitation of Offenders Act

In England and Wales, the Rehabilitation of Offenders Act sets the types of previous convictions that one must disclose when applying for employment and the length of time for which one has to disclose these convictions. When convictions reach the age at which they no longer have to be declared, they are referred to as being “spent.” There was much discussion about allowing convictions to be spent earlier. Legislation could be enacted so that convictions earned before a certain age (e.g., before one’s 18th birthday) no longer need to be declared after, say, reaching the age of 25.

9. Educate the public about desistance

There was a feeling that members of the public were unaware that people stopped offending and could lead positive lives. It was felt that more needed to be done to educate the public about change, how it happened, how often it happened, and how to support it.

10. Give people hope and show them a future

It is now well-recognized that the criminal justice system has become more actuarial in the years since the pessimism of the 1970s. Service users are often seen as risks that need to be managed. One of the things discussed was the notion that the criminal justice system should focus more on hope and become less concerned with risk, pessimism, and failure.

Some Caveats

It is important not to fall into the trap of thinking that promoting desistance is the sole responsibility of the criminal justice system. In fact, it might even be argued that the criminal justice system is poorly positioned to do much about desistance because so much of what appears to be related to desistance is found outside its domain (Farrall, 1995). As Österman (2018) noted in her study, females navigating the route to desistance in Sweden had an easier path out of crime than those in England, due in no small part to Sweden’s more developed welfare and social security system. As such, to help ensure desistance is possible, a country can establish, bolster, or maintain a strong welfare system that supports all sections of society. Not only will this help people who want to desist, it will also help those who are best suited to aid in the desistance process, such as parents, partners, wider family members, and charitable organizations.

It is also important to consider the impact of ethnicity on desistance. Very few studies have examined the processes by which different ethnic minorities desist from crime. Calverley (2013) studied three ethnic minority groups living in London — Blacks, Indians, and Bangladeshis — and found that the key processes

of family formation and employment were stable regardless of ethnicity. He further found that while religion did not play a part in desistance for Blacks, the concept and implications of being a “good Muslim” were a big part of the desistance process for Bangladeshis. For Indians, who tended to be Sikh or Hindu, religion was only important in that weddings provided opportunities for work. Informal business deals were often completed at weddings, which tended to be very large events held over several days. The religious values themselves mattered little.

Conclusion

It is not always easy to find employment — even less so if a person has few skills, a poor or nonexistent employment record, a criminal conviction, and few relationships with people who work. In addition to referring some persons on probation to employment programs, probation services should attempt to create local jobs for their caseloads. In other words, probation services should provide sheltered employment through schemes like ASSET and Springboard, discussed above. They could provide employment to suit a range of skills and needs. For example, a recycling scheme that sells reclaimed goods and goods made from recycled materials in its own chain of shops would need:

- People to collect the goods for recycling.
- Individuals to sort them for sale or recycling.
- People to make new goods from old materials or refurbish partially damaged goods.
- Individuals to work in the shops.
- Clerical assistants to process payments (to employees) and supervise revenue from the shops.

Although probation caseloads could not meet all of these skills, they could meet many of them. The aim would be to get people to the first rung of the employment ladder: a job. A job provides a record of “employability” — with people who can provide references — and may lead to jobs in other occupations.

Schemes like this offer work with a caring employer (the probation service) that is committed to a notion of social justice and understands the problems facing those on probation, such as needing time off to attend court and probation appointments. As such, they may better secure “good” employment for persons on probation. Probation services could also partner with local employers, who would employ suitable members of the probation services’ caseloads. All parties must accept that these individuals would require additional support and short periods of time off for probation supervision.

Both the desistance literature and some of the interventions discussed above (e.g., Jobs, Friends, and Houses) emphasize the need for good, secure accommodation for people who want to desist and for those who have desisted. There is also a great need for supported housing where rents are affordable, services are available to assist with building maintenance, and there is no danger of being evicted except in the most serious cases.

It is also crucial to support relationships with families, employers, neighbors, colleagues, and third parties. Several initiatives discussed in this paper explicitly aim to strengthen these relationships or make them a supportive social network for people who want to desist.

To both kick-start the desire to desist (if it is absent) and maintain this desire in the face of setbacks, an individual must identify a hook for change — something that will motivate their efforts to desist. These are (at least initially) likely to be quite mundane — for example, regaining or rebuilding a relationship or getting away from the local area. This does not make them any less important, however.

Criminal justice systems must learn how to identify these hooks — and help individuals identify them for themselves too — and then learn how to support these desires. To do so, criminal justice systems will need to change their current approaches and thinking (their system philosophy). They must move away from the current model of “fixing broken people” to one that more readily embraces the idea that those who want to desist:

- Have strengths that can be harnessed (while admitting that there are weaknesses that need to be avoided). This implies a change to assessment procedures.
- Need to be treated individually (at least some of the time) and given opportunities (rather than threats or punishments) to which they will want to respond positively.
- Should be engaged and employed as co-producers of their own (and others’) desistance. This implies greater use of former service users in peer mentoring schemes and as program designers.
- Will face setbacks and relapses during their journeys away from crime. Realism rather than idealism is the watchword here.
- Will find informal, rather than formal, interventions most valuable and meaningful. For example, probation staff could hold meetings with both the person on probation and people who are important to them.
- Do better when they are kept out of prison or sent to prison only briefly (whenever possible).

- Will more likely remain out of trouble when criminal justice system workers operate within the wider social and community contexts in which they live. This means working with religious institutions, employers, community groups, local sports groups, and other organizations based in the community.
- Will do better when the criminal justice system (where appropriate) supports their relationships.
- Should be encouraged to practice newly formed social identities (such as parent, partner, and employee) in supported contexts.
- Should have good progress recognized and, if possible, certified.
- Can be supported in careers (either formal employment careers or careers developed away from the economy, such as school governor, homemaker, and volunteer) by selective access to their previous criminal histories. This may mean refusing potential employers or insurers access to an individual's conviction records before a certain age (e.g., age 21) or after a certain period of time (such as convictions more than three years old). It may also mean banning access to conviction histories for the vast majority of offenses, with the possible exceptions of some sexual offenses or terrorism.

This paper provided suggestions on how colleagues working in the United States could develop these ideals into workable policies and practices. It is clear that while there are some useful pointers for what can be undertaken, it also remains the case that these interventions need both careful thought and a change in other aspects of the criminal justice systems in all countries in order to transform their basic philosophies from those of suspicion to those of hope.

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CHAPTER 6

Pathways to Desistance From Crime Among Juveniles and Adults: Applications to Criminal Justice Policy and Practice

Lila Kazemian, Ph.D.

Introduction

The association between age and crime is one of the most established facts in the field of criminology. It is generally agreed that aggregate crime rates peak in late adolescence/early adulthood (ages 18-21) and gradually drop thereafter. Although most adults who engage in criminal behavior also offended during adolescence, most juveniles who commit crime do not persist in adulthood (Robins, 1978; Sampson & Laub, 1993). This is true even among those who engage in more serious forms of crime (Mulvey, 2011). In other words, desistance from crime tends to be normative in adolescence.

In this regard, the age-crime curve creates a paradox. Individuals are more susceptible to crime in late adolescence and early adulthood, but they are also more likely to abandon criminal behavior after this period. As such, some of the more punitive criminal justice interventions targeting adolescents and emerging

adults may interrupt an otherwise downward slope of criminal behavior. Given the overrepresentation of minority youth at all stages of the juvenile and criminal justice processes — including arrest, pretrial confinement, prosecution, sentencing, and incarceration — the stigma of criminal justice responses overwhelmingly affects youth belonging to marginalized groups (Howell, Feld, & Mears, 2012).

Adolescence is a period marked by significant psychological, biological, and social changes. Offending behavior is one of many possible responses to the lack of access to adequate resources or supportive environments to cope with these developmental transitions (Butts, Pelletier, & Kazemian, 2018). In 2019, adolescents (7%) and emerging adults (ages 18-24; 20%) accounted for more than one quarter of all arrests.¹ It has been estimated that 30% to 60% of adolescents with an arrest will also be arrested in early adulthood, but the rates of persistence in crime decline steadily with age (Piquero, Hawkins, & Kazemian, 2012). The degree of continuity in offending is more pronounced in official records when compared with self-reports of crime (Farrington, Piquero, & Jennings, 2013). This may reflect the system's bias: Once a person is known to the police and has a criminal record, he or she may be more likely to be sanctioned for his or her behavior.

Decisions to give up crime may involve several relapses and reversals of decisions before reaching the final point of giving up crime permanently. It is important to distinguish three related concepts in the study of the abandonment of criminal behavior: recidivism, termination, and desistance. Recidivism refers to the act of repeat offending. It is a discrete event, measured by the commission of a new crime, and it is often the main outcome used to assess the effectiveness of criminal justice interventions. Termination refers to the point at which an individual commits his or her last crime. Unlike termination and recidivism, desistance from crime is regarded as a process rather than an event. It is broadly defined as the process involving a series of cognitive, social, and behavioral changes leading up to the cessation of criminal behavior (Kazemian, 2015a). By highlighting the importance of tracking both positive and negative changes in individuals' lives, the desistance paradigm offers valuable insight for juvenile and criminal justice interventions.

This paper provides an overview of the mechanisms underlying the process of desistance from crime among juveniles and adults and the implications for criminal justice policy and practice. The first section describes the known correlates of desistance from crime as well as the features of offending patterns that are associated with continued involvement in crime. The subsequent sections examine the implications for criminal justice interventions and agencies,

¹ <https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/topic-pages/tables/table-38>.

including law enforcement, courts, supervision, correctional facilities, and reintegration efforts.

What Do We Know About the Process of Giving Up Crime?

Criminal Career Features Relevant to the Study of Desistance

Researchers have identified the basic parameters of a criminal career:² the age of onset, prevalence, frequency, specialization/versatility, seriousness, co-offending patterns, duration, and termination/desistance (Piquero, Farrington, & Blumstein, 2003; Piquero, Hawkins, & Kazemian, 2012). Appendix 1 includes a summary table of these parameters. This section focuses on those parameters that are most relevant to the transition between adolescent offending and adult crime.

Age of onset refers to a person's age at the time of the first offense. An early onset of offending (i.e., 10-12 years old) is associated with longer and more active criminal careers when compared with a later start (Farrington & Hawkins, 1991; Le Blanc & Fréchette, 1989; Loeber & Le Blanc, 1990; Loeber et al., 2008). Delaying onset can affect the length and intensity of the criminal career (Farrington et al., 1990). There are two main explanations for the link between age of onset and persistence in crime: It can be a result of underlying time-stable individual traits (i.e., the persistent heterogeneity argument) or it can be due to the criminogenic effect of past offending on future crime (i.e., the state dependence perspective) (Nagin & Farrington, 1992).

Prevalence measures the proportion of individuals who engage in crime at a given point in time. Self-report surveys indicate that almost all individuals engage in some form of law-breaking behavior by their early 30s (96%) and 40s (nearly 100%) (Farrington, 1989, 2001). Prevalence rates usually follow the age-crime trend: a steady increase up to late adolescence, followed by some stability, and then a general decline (Piquero, Farrington, & Blumstein, 2007). There has been some debate about whether the decline observed in the age-crime curve reflects a decrease in the number of people who engage in crime or a decline in the overall number of crimes committed by those who remain active in crime (Blumstein, Cohen, & Farrington, 1988). Research on residual criminal careers has suggested that a small fraction of individuals continue to commit crimes at

² A criminal career is defined as the "longitudinal sequence of offenses committed by an offender who has a detectable rate of offending during some period" (Blumstein, Cohen, & Farrington, 1988, p. 2). A criminal career can be short or extend over many years, and include several crimes or as few as two offenses. The term "career" should not be taken in the sociological sense; it is not meant to imply that individuals who engage in crime derive their livelihood exclusively or even predominantly from crime (Farrington et al., 1990).

a higher rate well past the peak of the age-crime curve (Blumstein, Cohen, & Hsieh, 1982; Kazemian & Farrington, 2006, 2018).

There is some degree of continuity in offending between adolescence and early adulthood (Jennings et al., 2015; Tracy & Kempf-Leonard, 1996), but it is attenuated after emerging adulthood and with longer observation periods. It is difficult to make accurate long-term predictions about desistance based on early childhood and adolescent risk factors (Kazemian, Farrington, & Le Blanc, 2009; Laub & Sampson, 2003; Morizot & Le Blanc, 2007).

The *frequency* of offending denotes the number of crimes committed by individuals. Like prevalence rates, frequency usually peaks in late adolescence, followed by a general pattern of deceleration (i.e., a reduction in offending frequency) with age. This is true for violent and nonviolent offenses. Crime frequency declines with age even for those who persist in offending (Sampson & Laub, 2003). However, the downward trend is more erratic for frequency than for prevalence, especially in a person's 30s (Piquero, Farrington, & Blumstein, 2007).

Escalation refers to the increase in offending severity over time. There is some evidence of an increased risk of violent offending between late adolescence and emerging adulthood (Farrington, 2001; Le Blanc & Fréchette, 1989). The degree of continuity in violence between adolescence and adulthood has greatly varied across research samples. Because individuals who commit crime tend to be versatile, the types of offenses committed in adolescence are not necessarily predictive of adult offending. Rosenfeld, White, and Esbensen (2012) noted that even serious forms of violence generally follow the typical age-crime trend. Homicide tends to be a one-time occurrence, and thus individuals engaging in these offenses are not generally at risk for persistence (barring exceptional types, such as individuals who commit serial or mass murders).

The *duration* of a criminal career refers to the time interval between the first and last crimes. Duration has been estimated to be between four and 12 years for most individuals (for a review, see Kazemian & Farrington, 2006) and 16 years (on average) with extended follow-ups (to age 56) (Kazemian & Farrington, 2018). These figures should be interpreted with two caveats in mind: They have largely relied on official data (arrests or convictions), and the duration estimates do not consider the nature of the repeat offenses. For instance, Kazemian and Farrington (2018) noted that most convicted offenses (nearly 80%) consisted of nonviolent crimes.

Estimates of duration provide a sense of the aggregate length of a criminal career, but they do not inform us about individual risk. Research on *residual* criminal careers has examined the age-crime patterns of individuals actively engaged in crime by estimating the number of crimes and years remaining in criminal careers based on a variety of indicators (Kazemian & Farrington, 2006, 2018). Residual career length (the number of years remaining up to the point of the last

offense) and residual number of offenses (the number of offenses remaining in criminal careers) decline at a remarkably steady pace with age. Offending may spread out over several years, but individuals may commit few offenses during this time. Early risk factors, such as the age of onset, lose some predictive power after mid-life (see also Sampson & Laub, 2003). Offense type is not typically associated with the number of years and offenses remaining in criminal careers, which does not lend support to policies that automatically regard individuals convicted of violent offenses as “high risk.” Lastly, residual criminal careers decline with increasing time since the last offense, with a particularly sharp decline after the five-year mark. In other words, individuals who refrained from offending for a period of five years showed marked declines in their residual criminal careers.

In short, although some features of adolescent offending are associated with a higher likelihood of adult crime (e.g., age of onset), each parameter alone is insufficient to explain the risk of reoffending. Assessments of risk must also consider other indicators, such as the recency of the offense and past offending rate. The parameters presented above highlight the correlates of continued involvement in offending, but it is equally important to understand the mechanisms underlying the process of desistance from crime.

Correlates of Desistance From Crime³

Several criminological theories have offered frameworks to explain the process of desistance from crime. These theories and correlates of desistance have been reviewed thoroughly in the literature (Farrall et al., 2014; Rocque, 2017) and will only be summarized here. The correlates of desistance from crime in adolescence and adulthood share many similarities and vary in form rather than substance. It is also important to note that although most criminological theories were developed based on predominantly male samples, theories of desistance generally appear to be applicable to females. Still, some gender differences emerge in the correlates of desistance. For instance, parenthood is more strongly linked to desistance among women, whereas employment and peer influences may be more likely to accelerate or disrupt the desistance process among males (Rodermond et al., 2016).

Social Correlates of Desistance

Scholars have stressed the central role of strong ties to social institutions (e.g., family, marriage, employment, school, and religion) in explanations of desistance. This framework argues that the strength of bonds to conventional social institutions is the driving force behind desistance from

³ This section draws heavily from Kazemian (2020).

crime. Relationships with parents, schools, and peers are more influential in adolescence, whereas marriage and employment gain importance in the transition to adulthood (Sampson & Laub, 1993).

Several decades of research have highlighted the strong link between marriage and desistance from crime (Bersani, Laub, & Nieuwbeerta, 2009; Doherty & Ensminger, 2013; Farrington & West, 1995; Horney, Osgood, & Marshall, 1995; Sampson & Laub, 1993, 2003), but the timing and quality of marriage are also important (Theobald & Farrington, 2009; Laub, Nagin, & Sampson, 1998). Laub and Sampson (2003) summarized the key processes involved in the effect of marriage on desistance from crime: reduced deviant peer associations, exposure to new friends and extended family, changes in routine activities, residential changes, parenthood, and shifts in self-identity. Similarly, cohabitation has also been linked to reductions in criminal behavior, and some research has noted a cumulative effect of parenthood and union formation on desistance from crime (Savolainen, 2009).

Other social institutions, such as employment and religion, have been linked to the desistance process. Employment has been identified as a correlate of desistance from crime, but it may be more effective during specific periods of the life-course (Morizot & Le Blanc, 2007; Uggen, 2000). The link between religion and desistance has been inconsistent (Bouffard & Jin, 2019), but some research suggests that religion and spirituality may promote desistance from crime by their influence on morality (Pirutinsky, 2014) or by stimulating a shift in identity (Giordano et al., 2008).

Attachments to social institutions may also promote desistance by severing ties with friends who may encourage criminal behavior and by increasing interactions with prosocial others (Warr, 1998; Wright & Cullen, 2004). Peer encouragement can compel young people to engage in offending (Paternoster et al., 2013). Although leaving a gang can result in reduced violent offending (Thornberry et al., 2003; Krohn & Thornberry, 2008), relatively few studies have looked at the link between gang membership and desistance from crime. Findings from the Pathways to Desistance Study have suggested that disengaging from gangs can reduce offending behavior in the short term, but not necessarily in the long term (Sweeten, Pyrooz, & Piquero, 2013).

The structural characteristics of a neighborhood may create significant barriers to the desistance process. Communities characterized by low average income and higher crime rates may be conducive to juvenile offending (Sampson, Raudenbush, & Earls, 1997). Neighborhoods, through their impact on institutions that are known to promote desistance from crime (e.g., marriage and employment), may play a key role in the transition from juvenile offending to adult crime (Horney, Tolan, & Weisburd, 2012). For instance, neighborhoods with high unemployment rates offer limited opportunities for job stability. The same is true in neighborhoods where marriage is less likely or not expected.

In sum, life events may exert varying influences on the desistance process across individuals. This is largely dependent on how these events are experienced and whether they bring a sense of meaning to one's life. Subjective individual experiences are central to understanding the process of desistance from crime.

Individual Correlates of Desistance

Several cognitive transformations have been associated with desistance from crime.⁴ These include shifts in identity, cognition, and emotions, as well as the process of maturation.

The impact of maturation on desistance has been addressed at length in Danielle Boisvert's paper (2021) and will not be reiterated here. This framework stipulates that physical, intellectual, emotional, and psychological development explain the decline or cessation of offending behavior, and that these developmental factors cannot be overlooked in our understanding of desistance from crime, particularly in the transition from adolescence to adulthood. Desistance from offending in adolescence has also been linked to increased psychosocial maturity (Monahan et al., 2013).

Criminological research has drawn attention to the importance of identity transformation in the desistance process (Bottoms et al., 2004; Paternoster & Bushway, 2009; Giordano, Cernkovich, & Rudolph, 2002; King, 2013). Maruna (2001, p. 7) concluded that developing a "coherent, pro-social identity" and a positive self-image are essential components of the desistance process. The individuals who were on a path to desistance in Maruna's study believed that they had a "good core self" and that they were (and had always been) fundamentally good people who were led into bad circumstances.

Anderson and McNeill (2019) detailed the cognitive skills that are central to the desistance process. These include effective decision-making, human agency, emotional regulation, executive functioning, and the ability to resist temptations (i.e., self-control). Self-control was long regarded as a stable individual trait (Gottfredson & Hirschi, 1990), but researchers have underlined the dynamic nature of self-control (Na & Paternoster, 2012) and the individual strategies developed to cope when it is deficient (Shapland & Bottoms, 2011). Unsurprisingly, substance use is likely to impede the desistance process since it affects a person's ability to think rationally (White et al., 2002). Drug and alcohol use can be particularly disruptive to young adult development (Hussong et al., 2004).

Giordano and colleagues' (2002) theory of cognitive transformation described the cognitive shifts that promote the process of desistance: an openness to

⁴ For an extensive review of cognitive transformations linked to desistance, see Anderson and McNeill (2019).

change, exposure to prosocial experiences that will further promote desistance (e.g., employment, marriage), adherence to a new prosocial and noncriminal identity, and a shift in the perception of the criminal lifestyle (i.e., the negative consequences of offending become obvious to the individual).

Emotional processes are also important in the explanation of desistance from crime. Anger and depression can hamper the desistance process (Giordano, Schroeder, & Cernkovich, 2007). The feeling of perceived injustice can be a powerful fuel for persistence in crime (Kazemian, 2020). Generativity — the process of developing concern for others and providing help — has been linked to positive emotions (LeBel, 2007). Researchers have stressed the importance of motivation and hope in the desistance process (Farrall, 2002; Farrall & Calverley, 2006). However, we also know that hope and the desire to change may be insufficient in the face of overwhelming structural barriers (Bottoms et al., 2004; Carlsson, 2016).

Racial and ethnic inequality can be a major impediment to the process of desistance from crime. Fader and Traylor (2015, p. 252) noted that the challenges among African Americans are “conceptually and empirically inextricable from social class and urban poverty” and “the interplay between racial and criminal stigma may make it more difficult for people of color to craft desistance narratives and conceive of a law-abiding replacement self.” There are significant obstacles to developing a desistance narrative in the face of double stigma resulting from one’s minority and criminal status (Pager, 2003). Social environments characterized by disadvantage and exclusion render desistance efforts particularly challenging (King, 2013). This is an important issue given the well-established overrepresentation of minorities, especially Black males, in the American criminal justice system (National Research Council, 2014). This may lead criminal justice agencies to assume that members of minority groups have inherently higher inclinations to criminality. The data do not support this assumption. Loeber and Farrington (2011) found differences in the prevalence of violent offending across racial groups, but these differences dissipated when accounting for social and structural risk factors, such as exposure to a high-risk family environment, being on welfare, or living in a high-crime neighborhood.

Integrated Explanations of Desistance

Desistance from crime is more likely to occur in the presence of both cognitive changes and adequate social support. There is evidence to suggest that life events are consequences, rather than causes, of desistance. In other words, decisions to give up crime precede entry into marriage, employment, or parenthood. Lyngstad and Skardhamar (2013) followed a sample of Norwegian males for a period of five years before and after marriage. They found that reductions in criminal offending were initiated in the years preceding marriage and thus were not a result of marriage. Similar results were found in analyses of the

effect of parenthood (Monsbakken, Lyngstad, & Skardhamar, 2013; Theobald, Farrington, & Piquero, 2015) and employment (Skardhamar & Savolainen, 2014) on offending. It is also important to note that turning points are not necessarily the objective measures that we assume them to be; marriage is not always beneficial, and separation is not always detrimental. Subjective perceptions and interpretations of life events are important (Massoglia & Uggen, 2007).

In short, debates about the superiority of one theoretical framework over another may not be fruitful. Different theoretical explanations may have relevance for different individuals. The underlying mechanisms triggered by life events and the meaning granted to life experiences, which can vary a great deal across individuals, are central to the explanation of desistance from crime. Importantly for criminal justice policy and practice, efforts to make long-term predictions about desistance have not yielded impressive results (Kazemian, 2015b). Desistance is likely to occur as a result of various turning points and cognitive shifts that occur throughout the life-course, rather than being determined by early risk factors. This is good news for interventions that can potentially deviate offending trajectories and accelerate the process of desistance from crime.

Recidivism-Focused Versus Desistance-Promoting Interventions

Some guiding principles have emerged from the knowledge base to steer efforts to develop desistance-promoting interventions. First, there is a need to move past a purely recidivism-focused approach. The complete abandonment of offending activities is unlikely to occur suddenly, especially among individuals who have been highly active in offending from a young age. Criminologists generally agree that desistance is best perceived as a process rather than a discrete event, but this perspective has not yet been integrated in our policies and practices. Our interventions favor a result-oriented approach and fixate on recidivism as an indicator of success and failure, which may overlook changes and progress exhibited in other behavioral, cognitive, and social outcomes (Kazemian, 2015b). We largely continue to use recidivism as an inverse measure of desistance, most likely due to the convenience and availability of recidivism data. The assessment of desistance would ideally expand beyond offending outcomes and account for improvements in mental health, cognitive patterns and emotional regulation, social bonds, and (re)integration efforts.

The effectiveness of most interventions continues to be assessed based on the absence of negative outcomes. The youth justice system inhibits its own effectiveness when it focuses solely on negative outcomes as indicators of success because it is not set up to track and identify positive changes (Butts, Pelletier, & Kazemian, 2018). Positive youth development is a “programmatic framework that encourages service providers to concentrate on the ability of all young

people to thrive when they experience positive relationships and meaningful activities in supportive and safe environments” (Butts, Pelletier, & Kazemian, 2018, p. 1). This paradigm involves tracking not only recidivism, but also various positive outcomes that can foster the process of desistance from crime, such as healthier relationships with adults and peers, academic or vocational engagement, improved self-esteem, conflict resolution, stress management, empathy, and compassion.

Butts and colleagues (2018) summarized the key features of several programs and models that are consistent with the positive youth development paradigm. These include Developmental Assets (Search Institute of Minneapolis), the 5 Cs model of youth development (Tufts University), the Youth Program Quality Assessment Model (David Weikart Center for Youth Program Quality), the Positive Youth Justice Model, and Youth Thrive (Center for the Study of Social Policy). These interventions look beyond recidivism and track positive changes, shift the focus from deficits to strengths, and promote approaches that seek to connect adolescents with positive resources that can help them make progress in the desistance process.

Some of the most effective interventions for adolescents have acknowledged that (1) family support is key to stimulating positive change and (2) success is more likely when it draws on support from various resources in the youth’s life. For instance, models such as Functional Family Therapy (FFT) and Multisystemic Therapy (MST) have been shown to reduce juvenile offending and “induce adolescent desistance” (Rocque, 2017, p. 203; Welsh et al., 2012). FFT has been successfully implemented in at least 24 states, and MST has been successfully implemented in at least 34 states (Elliott et al., 2020).

With regard to gang prevention programs, some interventions may affect gang membership but they may not necessarily reduce offending behavior (Esbensen et al., 2013). For instance, the Gang Resistance Education And Training (G.R.E.A.T) program — one of the largest scale gang prevention initiatives in the country — is a school-based prevention program that includes a curriculum led by police officers in middle schools. An early evaluation of the G.R.E.A.T. program did not find any significant long-term effects on gang membership or delinquency. Changes were implemented to improve the G.R.E.A.T curriculum (Esbensen et al., 2002). In its revised version, the program resulted in short-term reductions in gang involvement and improved relationships between youth and the police, but it did not reduce delinquency. Although G.R.E.A.T. and other gang prevention programs (see Wong et al., 2016) may not have successfully reduced offending, they nonetheless tackle some of the risk factors linked to criminal behavior, which may ultimately foster the process of desistance from crime. Gang membership is likely to end before the peak of the age-crime curve (White, Loeber, & Farrington, 2008), which highlights the ephemeral nature of adolescent gangs (Thornberry et al., 2003). Aggressive strategies that aim to dismantle the gang may have the unintended consequence of crystallizing gang

identification and lead to its persistence, rather than allowing it to follow its natural and transitory course (Klein, 1995). Formal intervention may not always be the most productive course of action.

Among adolescents and adults alike, evidence suggests that punitive responses may not be effective in reducing reoffending and that the effects of punishment may spill over to the broader community. School suspensions and expulsions can significantly increase the likelihood of subsequent criminal justice involvement (Ramey, 2016; Mowen & Brent, 2016). Although some evidence suggests that we may have downplayed the role of selection bias in the association between school discipline and academic outcomes (Anderson, Ritter, & Zamarro, 2019), punitive school climates (characterized by high rates of suspensions) have been found to adversely affect school performance, even among those who are not subject to the disciplinary action (Perry & Morris, 2014).⁵ Because punitive climates may be detrimental to all members of a community, alternative strategies such as restorative approaches should be considered to address behavioral problems, when appropriate. The findings for restorative justice initiatives in juvenile justice appear to be promising, but more rigorous evaluations are needed before we can draw any firm conclusions (Wilson, Olaghere, & Kimbrell, 2017). During periods of rising crime rates, pressing public safety concerns may compel us to focus on evidence-based practices rather than invest resources in interventions that have not been subject to thorough evaluations. Given that juvenile arrest rates have been declining since the late 1990s and reached a new low in 2019 (Office of Juvenile Justice and Delinquency Prevention, 2020), this may be an opportune time to implement and evaluate innovative practices and interventions that may promote the process of desistance from crime among adolescents and young adults.

Desistance-Promoting Law Enforcement

Police arrests can negatively affect known correlates of desistance, including educational outcomes such as high school graduation (Kirk & Sampson, 2013; Dennison & Demuth, 2018), commitment to school (Wiley, Slocum, & Esbensen, 2013), and college enrollment (Widdowson, Siennick, & Hay, 2016), as well as later employment outcomes (Dennison & Demuth, 2018). Police contact may also trigger mental health issues (e.g., stress, anxiety, depression), which can, in turn, affect cognitive abilities and performance in school; this seems to be especially true for youth of color (Legewie & Fagan, 2019). Among young adults, at least two forms of contact with the criminal justice system — arrest and incarceration — have been linked to poor mental health outcomes (i.e., mood

⁵ Conversely, a disruptive environment may adversely affect schoolwide achievement (Kinsler, 2013), which suggests that disciplinary actions may counter the negative effects of more extreme forms of disruptive behaviors.

and anxiety disorders) (Sugie & Turney, 2017). Contact with law enforcement may disrupt the desistance process by excluding access to key social institutions (e.g., job market, educational opportunities, housing, family ties) as a direct consequence of the label.

Drawing on four waves of longitudinal data involving more than 2,000 middle school students who were matched on their propensity to experience police contact or arrest, Wiley and colleagues (2013) found that young people who were arrested by the police reported higher rates of subsequent delinquency when compared to those who were only stopped. Similar results were observed for those who were stopped versus those who had no police contact. Police contacts resulted in the development of a “deviant identity” as well as increased associations with peers who engage in delinquency, which are well-established barriers to desistance from crime. A Chicago study using matched samples found similar results: Self-reported violent offending was significantly higher among youth who had been arrested when compared with those who did not experience arrest (Lieberman, Kirk, & Kim, 2014). These findings suggest that law enforcement practices that involve a high rate of stops (e.g., stop, question, and frisk) and few actual apprehensions may be detrimental to the process of desistance among young people.

Police contacts disproportionately implicate members of minority groups (Bishop, 2005). A study conducted in St. Louis (MO) found that traffic stops were most likely to result in searches when they involved a white officer and a Black driver (about 8% of stops) and least likely with a Black officer and a white driver (1.5% of stops) (Rojek, Rosenfeld, & Decker, 2012). Aggressive law enforcement strategies, which involve widespread police intervention even with limited suspicious behavior, may “[exacerbate] preexisting inequalities for an expanding group of already disadvantaged individuals” (Brayne, 2014, p. 19) and heighten mistrust of authorities among youth (Shedd, 2015). Given that police contacts are heavily skewed toward racial and ethnic minorities, arrests that do not lead to a conviction are not only a poor indicator of criminal behavior, they may also create undue stigma based on incidents that do not necessarily reflect offending risk.

Law enforcement strategies that offer promising insight for desistance efforts involve active partnerships with the individuals who engage in offending and other agents of the criminal justice system, and tackle perceptions of legitimacy and procedural justice. Rooted in problem-oriented policing, the focused-deterrence model emerged from the Operation Ceasefire initiative in Boston in the 1990s (Kennedy, Piehl, & Braga, 1996). The focused-deterrence approach to policing (also referred to as “pulling levers policing”) (Kennedy, 1997) involves collaborative efforts between law enforcement, community leaders and organizations, and social services agencies to inform individuals engaging in specific crimes that these behaviors would not be tolerated in the community. If individuals persist in the offenses of concern, law enforcement then resorts

to “pulling all levers” available to them to sanction the behaviors, ranging from Internal Revenue Service audits to stricter sanctioning of low-level offending.

In their meta-analysis, Braga, Weisburd, and Turchan (2018) concluded that focused-deterrence strategies led to significant reductions in crime as well as diffused benefits to neighboring areas. Braga and colleagues (2018) noted that the “network of capacity” is essential to the successful implementation of focused-deterrence programs (Braga & Winship, 2009), and effective focused-deterrence strategies require careful planning and structure (Braga, Turchan, & Winship, 2019). No single agency can address gang violence on its own, and collaborative efforts between law enforcement, prosecution, and probation agencies are essential to the success of focused-deterrence strategies. Partnerships between law enforcement and social service agencies can help to divert youth away from arrests and toward social services that may be more conducive to desistance from crime (Schiraldi, Western, & Bradner, 2015). For these alliances to be effective, a cultural shift is needed, not only in police training and education but also in public perceptions about the role of law enforcement. Criminal justice agencies and institutions of higher education fulfill an important role in shifting some of the traditional portrayals of the police.

Desistance-promoting law enforcement strategies also involve legitimacy-based interventions, which expand upon the traditional deterrence framework to include perceptions of legitimacy and procedural justice. These programs are based on the premise that individuals are less likely to commit crime if they regard laws as legitimate and if they perceive the actions of those who enforce them to be fair and just (Tyler, 1997; Papachristos, Meares, & Fagan, 2012). When youth are discontent with their treatment by the police, they are more likely to engage in delinquency and resort to violence to resolve disputes (Slocum & Wiley, 2018). Law enforcement stops that do not lead to arrest may result in civic disengagement and mistrust (Lerman & Weaver, 2014). Perceptions of fair treatment and legitimacy of the police have been inversely linked to violence-promoting beliefs (Jackson et al., 2013). When individuals perceive that they have been treated unfairly by law enforcement, they may develop feelings of anger and resentment and have less respect for laws and the police (Barkworth & Murphy, 2015).

Using a quasi-experimental design, Wallace and colleagues (2016) examined the impact of Chicago’s Project Safe Neighborhoods on reoffending rates. Specifically, they assessed the impact of Offender Notification Forums, which bring together individuals who engage in criminal acts, law enforcement, service providers, and community leaders in discussions to address the levels of violence in the community. Wallace and colleagues (2016) found that these forums significantly reduced the risk of reimprisonment and the prevalence of serious crime and resulted in longer time periods out of prison. Longer intervals between offenses are an indicator of progress in the process of desistance from crime (Kazemian & Farrington, 2006, 2018).

Overall, the findings presented here suggest that policing initiatives that combine elements of focused deterrence and legitimacy show great promise for the development of desistance-promoting law enforcement strategies. Rather than relying solely on coercion tactics, these interventions regard individuals as active agents in their process of change. Providing individuals with an opportunity to move away from crime does not ensure that they will rise to the occasion, but permanent change is more likely when it is chosen rather than imposed.

Police-led juvenile diversion efforts offer an alternative option to court processing and help avoid some of the negative consequences associated with a juvenile record. These initiatives can take the form of a caution or a final warning and can be combined with other treatment modalities. Police-led diversion practices have been found to have promising effects on the reduction of offending behavior, at least among adolescents with limited prior involvement with the juvenile justice system (Wilson, Brennan, & Olaghery, 2018). More systematic implementation and evaluations of these interventions are needed.

Some evidence has suggested that restorative strategies in law enforcement can help prevent repeat offending and foster the process of desistance from crime (Sherman & Strang, 2007). Restorative policing involves meetings between individuals who have been accused or convicted of crime and those who have been affected by the offense; these initiatives are led by law enforcement officers and seek to achieve some level of reconciliation. The 12 experiments examined by Sherman and Strang (2007) — conducted in the United States, the United Kingdom, and Australia — generally found that reconvictions were less common among individuals who had been randomly assigned to restorative justice interventions versus those who were not; this was true for both adults and juveniles.

Of course, police contact is sometimes inevitable. Crimes do occur, and law enforcement must respond to these incidents. However, most contacts with law enforcement do not lead to an arrest or a conviction (Rosenfeld & Fornango, 2012), and we need to revisit the misconception that unproductive police stops and arrests bear no consequences. Police officers may not be aware of the harm caused by a stop that does not lead to an arrest or an arrest that does not result in a conviction, especially among minority youth who may experience these contacts more frequently. Aggressive law enforcement strategies not only harm the relationships between the police and the community, but they can also impede an individual's path toward desistance by perpetuating stigmatization, labeling, and feelings of injustice, and by their detrimental impact on perceived police legitimacy. When the public perceives that aggressive law enforcement strategies have gone too far and no longer views the system as legitimate, this creates a climate in which even justified arrests may be regarded as unjust. Conversely, although over-policing can impede desistance efforts, some scholars have cautioned about the perils of *under*-policing. They have stressed the need to shift the conversation from “defunding the police” to developing alliances with

community partners that may offer some of the skillset and expertise that would complement law enforcement strategies (Brunson, 2020).

Promoting Desistance in the Courts

Courts, prosecutors, and judges can play a key role in the process of desistance from crime based on how they choose to process cases. As in other stages of the criminal justice process, sentencing practices have disproportionately affected racial and ethnic minorities, especially the poorest, and have led to the notable overrepresentation of African American and Hispanic individuals in the criminal justice system (Blumstein, 2004; National Research Council, 2014). There are a number of relevant issues to consider in the link between court practices and desistance from crime, including the adverse impact of custodial sentences on reoffending and on known correlates of desistance, the discretionary power of prosecutors, and the consideration of age in sentencing decisions.

The Link Between Sentence Severity and Reoffending

Sentence severity does little to prevent reoffending. We know that custodial sentences can disrupt the desistance process, either by directly promoting criminal behavior through labeling and stigmatization or by adversely affecting ties to social institutions (for a review, see Kazemian & Walker, 2019). The length of a prison sentence is unrelated to the risk of future offending (Loughran et al., 2009; Snodgrass et al., 2011). One study showed that individuals randomly assigned to more punitive judges (i.e., judges who resorted to incarceration more often and for longer periods of time) were not less likely to reoffend (Green & Winik, 2010).

Punishment does not appear to be effective in curtailing recidivism among juveniles (Lipsey, 2009; Lipsey & Cullen, 2007). In a systematic review including 7,304 juveniles from 29 studies with rigorous methodological designs (i.e., random assignment to court or more informal processing), Petrosino and colleagues (2010) concluded that court prosecution not only failed to reduce reoffending, it in fact increased it. The authors recommended that jurisdictions examine their policies to assess whether more juvenile cases could be dismissed or diverted away from prosecution. At best, juvenile incarceration bears no impact on recidivism. More likely, it impedes the process of desistance from crime and promotes continued offending. These findings support efforts to avoid juvenile system processing when possible (i.e., in the absence of a serious public safety concern) to prevent persistence in crime beyond adolescence.

Evidence from the Netherlands and Australia has suggested that alternatives to incarceration — including community service and suspended sentences — may be more effective in preventing reoffending when compared with short

prison sentences (Weatherburn, 2010; Wermink et al., 2010). Similar results were observed in the United States. Using matched samples, Mears, Cochran, and Bales (2012) concluded that prison sentences are more likely to result in increased offending behavior when compared with probation. Overall, imprisonment yields higher post-release reoffending rates when compared with community sanctions (Bales & Piquero, 2012). It is possible to reduce our reliance on confinement without compromising public safety; New York, New Jersey, and California have succeeded in simultaneously reducing their incarceration and crime rates (Greene & Schiraldi, 2016).

The Role of Prosecutors

Prosecutors have been referred to as “gatekeepers to the criminal justice system” (LaGratta, 2020). They have a great deal of power in determining who gets punished and for how long. There is limited research on how different prosecutorial practices affect juvenile desistance or persistence in crime (Howell, Feld, & Mears, 2012), but some scholars have highlighted the crucial role of prosecutors in driving incarceration rates.

Pfaff (2017) dispelled some of the myths underlying the rise of mass incarceration in the United States. He argued that the exponential increase in the recourse to imprisonment was not due to the war on drugs or even the imposition of longer prison sentences. According to Pfaff, the steady increase in the number of prosecutors in the United States and their growing discretionary power were the main drivers of increased incarceration rates. Prosecutors have a great deal of discretionary power in determining whether to charge or dismiss a case, the severity of the charges, the conditions of a plea bargain, and an individual’s trajectory in the criminal justice system. The number of prosecutors nearly doubled between 1970 and 2007, from 17,000 to 30,000. This increase was particularly significant after 1990. Despite declining crime rates, this period was marked by a rise in felony charges. Pfaff noted that the vast majority (about 95%) of criminal cases are resolved by plea bargains, which may fuel recidivism if these cases result in more recourse to incarceration. He suggested that it may be wiser for mayors and local officials to appoint prosecutors and judges, which may make them less sensitive to public opinion than if they are elected. Pfaff also highlighted the importance of changing district attorney culture.

There are some promising initiatives in prosecution. For instance, Fair and Just Prosecution “brings together newly elected local prosecutors as part of a network of leaders committed to promoting a justice system grounded in fairness, equity, compassion, and fiscal responsibility.”⁶ This network aims to shift the traditional prosecutor culture by educating newly elected prosecutors, creating partnerships with academic institutions and other organizations, moving

⁶ <https://fairandjustprosecution.org/about-fjp/our-work-and-vision/>.

“beyond incarceration-driven approaches,” and offering a reform-driven model of prosecution. Fair and Just Prosecution has understood the unique needs and challenges of emerging adults (18-24 years old). The recommended guiding principles for young adult justice set forth by Fair and Just Prosecution (2019, p. 13) are highly consistent with the desistance paradigm:

1. Adopt the least restrictive sanction possible, and if incarceration is absolutely necessary, couple it with meaningful rehabilitation options.
2. Recognize that “failure” is an expected step, and zero-tolerance policies are counterproductive.
3. Use YA [young adult] research to inform program development, incentives, and responses.
4. From the courtroom to detention facilities to treatment providers, interactions should be respectful and trauma-informed.

Fair and Just Prosecution (2019) provided examples of policies adapted to young adults. For instance, New York, Washington, D.C., Michigan, and Alabama enacted laws that enable courts to deviate from mandatory sentences for young adults and resort to expungement for past convictions. Lastly, Fair and Just Prosecution offered several examples of jurisdictions that have developed alternatives to prosecution and incarceration for emerging adults, including Common Justice in New York, Roca in Massachusetts, and Lone Star Justice Alliance in Texas.⁷

Post-arrest diversion programs seek alternatives to adjudication that may prevent youth from further progressing in the criminal justice system. In Detroit, the Correct Course program provides a wide range of services to youth and their families for a period of three to six months, including individualized needs planning, academic tutoring, job training, parenting education, conflict resolution, and individual and family counseling, as well as mental health and substance use interventions. Hodges and colleagues (2011) found that community alternatives to adjudication resulted in low recidivism rates in a one-year follow-up (7.7%); only 1.3% of program participants exhibited escalation in their offending patterns. It costs approximately \$1,500 per participant to provide services for a period of six months; this suggests savings ranging between \$7,500 and \$22,000 when compared with the traditional adjudication alternative. This study did not include a control group. As such, conclusions about the program’s effectiveness are premature, but it provides insight into the type of juvenile intervention that may be conducive to desistance from crime. Rigorous evaluations are needed before we can draw firm conclusions about the effectiveness of diversion programs on recidivism and desistance.

⁷ For an overview of innovative perspectives on prosecution, see LaGratta (2020).

The Consideration of Age in Prosecution

The United States Supreme Court has acknowledged the reduced culpability of adolescents in three landmark cases: *Roper v. Simmons*, *Graham v. Florida*, and *Miller v. Alabama*, which banned the death penalty and life imprisonment without the possibility of parole for juveniles, regardless of the nature of the crime. Danielle Boisvert's paper (2021) highlighted some of the reasons underlying the Supreme Court's decision: immaturity, reduced capacity for impulse control, and a limited sense of responsibility.

Evidence suggests that the practice of transferring adolescents from juvenile to criminal court does not exert a significant effect on aggregate juvenile violent crime (Steiner & Wright, 2006). It contributes to higher individual recidivism rates (Bishop & Frazier, 2000) and adversely impacts other correlates of desistance from crime (e.g., lower income in adulthood) (see Taylor, 2015). Howell and colleagues' (2012) review of research confirmed that transferring youth to the adult system has detrimental effects on the likelihood, rate, and seriousness of reoffending.

Given what we know about brain development and psychosocial maturation, courts could also consider the possibility of raising the age of criminal responsibility and extending the juvenile status into emerging adulthood. In 2014, following recommendations issued by a Dutch Study Group on the transition between juvenile delinquency and adult crime, the Dutch government acknowledged the compelling empirical evidence on youth development and passed legislation for the special treatment of individuals between the ages of 16 and 23 years old. As a result, judges in the Netherlands now apply juvenile justice rules to this age group. The Dutch Study Group was modeled after a similar study group that was held in the United States and funded by the National Institute of Justice.⁸

In recent years, many state jurisdictions have ceased processing 16- and 17-year-old youth in adult criminal courts. Vermont was the first state to raise the age of criminal responsibility in 2018. The state now includes 18-year-olds in its juvenile justice system and, effective in 2022, it will also include 19-year-olds. Similar reform discussions are occurring in Massachusetts and California.⁹ This is certainly a good starting point, but it does not correspond to the developmental transition ages identified by researchers. Young adult courts focusing specifically on 18- to 24-year-olds may offer an alternative to the adult criminal justice system. These courts would ideally work with adolescent development experts to develop case plans that focus on fostering desistance from crime, successful reintegration, and “developmentally appropriate alternatives to incarceration”

⁸ The proceedings from these meetings were published in an edited volume (Loeber & Farrington, 2012).

⁹ <https://thecrimereport.org/2020/05/18/ma-ca-next-states-to-consider-raise-the-age/>.

(Schiraldi, Western, & Bradner, 2015, p. 10). Some jurisdictions (e.g., San Francisco and New York) have adopted some version of the young adult court through partnerships with the district attorneys' office.

Desistance-Promoting Supervision

We find ourselves not only in an era of mass incarceration, but also of mass supervision (Phelps, 2017; McNeill, 2019). The Pew Charitable Trusts (2018) reported that 1 in 55 Americans find themselves on community supervision; this rate is as high as 1 in 23 for the Black population, in contrast to 1 in 81 for whites. More intensive forms of probation supervision have not been found to reduce reoffending (Hyatt & Barnes, 2017). Stephen Farrall's paper (2021) highlighted the elements of effective probation supervision and they will not be repeated here. A few points, however, are worth reiterating.

Rather than fulfill its original mandate of serving as an alternative to incarceration, supervision — probation, parole, and extended supervision — can feed mass incarceration and may constitute a major barrier to the process of desistance from crime. A report published by Human Rights Watch and ACLU (2020) found that a significant proportion of state prison admissions occurred as a result of technical violations (more than 50% in 20 states and as high as two-thirds in six states). Similar findings were noted in a five-year follow-up study published by the Bureau of Justice Statistics, which drew on the population of individuals who were released from incarceration in 2005 in 30 states (Durose, Cooper, & Snyder, 2014). One in four (25.3%) individuals released was arrested for a violation of the conditions of community supervision. Another 39.9% were arrested for “other public order offenses,” such as the failure to appear or obstruction of justice, “which in some jurisdictions may be the legal response to probation or parole violations” (Durose, Cooper, & Snyder, 2014, p. 9).

These data suggest that our current supervision system may be well equipped to detect recidivism, even in its most minor form, but may not be conducive to desistance from crime. Supervision violations may affect other factors that are linked to recidivism, such as access to public assistance programs (e.g., public housing, food stamps). Many of the obstacles underlying supervision violations — poverty, addiction, mental illness, and racial and ethnic bias — are difficult to overcome even if individuals exhibit an extraordinary level of motivation to turn their lives around. It may be that probation and parole officers use technical violations to justify revocation when criminal behavior is suspected but difficult to prove. We do not have any large-scale data available to explore this question.

Officers may differ in their supervision styles. A Dutch study identified the practices of “highly engaged parole officers” (Doekhie et al., 2018). Parole experiences that were predominantly surveillance-focused were not deemed to be particularly helpful for desistance efforts. In contrast, the rehabilitation-

focused approach appeared to be more effective in promoting desistance from crime. The parole experience was most conducive to desistance when those on parole regarded parole officers as supporters rather than mere enforcers, when the officers could acknowledge the “trial-and-error nature of the desistance process” (p. 502) and did not automatically revoke parole as a result of a violation of the conditions of release. The quality of the relationship with the parole officer plays an important role in the desistance and reintegration processes of individuals with a history of incarceration; it is also predictive of recidivism (Chamberlain et al., 2018). In the “assisted desistance” model, probation and parole officers provide reinforcement and encouragement when necessary, but they allow individuals to exercise agency in their own process of change.¹⁰ Imposed change is unlikely to yield long-term results, but practitioners can certainly help plant the seeds for positive change.

Doekhie and colleagues’ (2018) research, and many other studies conducted in Europe, inevitably raise the question of whether such supervision practices are possible in the United States, where the incarceration rate is about seven times higher than in European countries. For the rehabilitation-focused approach to be a viable option in the American context, we need to: (1) decrease the workload of parole officers by reducing our reliance on incarceration, cutting the number of people under correctional control, and shifting resources from control strategies to parole and reentry initiatives that support rehabilitation and reintegration, including the possibility of training more parole officers; and (2) follow the lead of other countries and offer social work training to parole officers so that they may be better equipped to support individuals in their efforts to give up crime.

The desistance knowledge base is clear on one issue: Informal control mechanisms are more effective in triggering individual change and promoting the process of desistance from crime when compared with formal control mechanisms, which may rather serve to detect, temporarily delay, or even encourage recidivism. Probation and parole administrators would benefit from striking a better balance between informal (including the relationships with supervision officers) and formal (curfews, returns to prison for technical violations, etc.) control structures (Byrne, 2012). Desistance-promoting supervision is not limited to the tasks of monitoring behavior, detecting failures, and enforcement; it also entails tracking and capitalizing on individual progress and success. There are examples of desistance-promoting probation practices that draw on principles of the positive youth development model,¹¹ but systematic evaluations are lacking.

¹⁰ For a review on the topic of assisted desistance, see Villeneuve, F.-Dufour, & Farrall (2021).

¹¹ See the example of New York City, <https://www1.nyc.gov/site/probation/services/youth-thrive.page>.

Some promising findings have emerged from the Maryland Department of Juvenile Services, which implemented an initiative that aims to promote more effective supervision practices, create a stronger balance between sanctions and incentives, and prevent custodial placements (i.e., the Accountability and Incentives Management, AIM, system) (Farrell et al., 2020). This intervention draws on the deterrence framework and seeks to implement swift, certain, and proportionate responses to behaviors. Findings from this initiative suggested that AIM supervision reduced the likelihood of probation violation, residential placement, and recidivism. We need more initiatives of this nature, along with more rigorous evaluations, to assess the effectiveness of interventions that offer a better balance between sanctions and incentives in reducing offending behavior.

The climate is ripe for reform in our supervision practices. A group of current and former leading authorities in community supervision agencies has called for “probation and parole to be substantially downsized, less punitive, and more hopeful, equitable and restorative.”¹² Many of the suggested reforms are consistent with principles of the desistance paradigm, such as the possibility of reducing the length of the supervision period through good behavior and milestones, conditions of supervision that are tailored to the needs of each individual, and a reduced recourse to incarceration for technical violation and low-level offenses.

Desistance From Crime in the Context of Incarceration

The United States remains the world leader in incarceration. The growth in incarceration rates has been particularly pronounced for women since 1980, with an imprisonment rate that has been twice as high as for men.¹³ The harms of incarceration for individuals, their families, and their communities have been abundantly documented (National Research Council, 2014).

We know relatively little about the individual, behavioral, and social changes that occur over the course of a prison sentence. Research and theorizing on the desistance process during periods of confinement have been especially limited (Kazemian & Travis, 2015). A prison sentence can promote desistance if individuals can find meaning to their lives and discover ways to make constructive use of their time while in confinement (Kazemian, 2020; Schinkel, 2014). There are some qualitative accounts of positive transformations and desistance from crime in prison (Kazemian, 2020), but these changes have not been captured in large-scale quantitative research. Although few studies with strong methodological designs have assessed the impact of incarceration on desistance from crime, the existing evidence suggests that in the aggregate,

¹² <https://www.exitprobationparole.org/statement>.

¹³ <https://www.sentencingproject.org/publications/incarcerated-women-and-girls/>.

our prisons in their current form do little to reduce recidivism and promote desistance (Nagin, Cullen, & Jonson, 2009; Mitchell et al., 2017). The imprisonment-recidivism link appears to be particularly pronounced for men (Mitchell et al., 2017). Prison impedes desistance from crime by: (1) harming ties to key social institutions, (2) neglecting the mental health needs and trauma histories of individuals who are incarcerated, (3) disproportionately focusing on rule violations and failing to track and reward progress, and (4) creating an environment that may be incompatible with the outside world. These observations bear relevance for both juvenile and adult incarceration.

First, prison impairs ties to social institutions, such as family, employment, and education (National Research Council, 2014). Individuals who are incarcerated and wish to maintain contact with their family members face a wide array of barriers (Braman, 2004; Comfort, 2008; Christian, 2005). Incarceration increases the risk of separation (Turney & Wildeman, 2013). Men who are married when entering prison are more likely to separate from their partners when compared with the general population, and those who are unmarried are less likely to get married later in life (Western, 2006). Imprisonment reduces the likelihood of employment after release, even among those who serve short prison sentences (Apel & Sweeten, 2010; Bäckman, Estrada, & Nilsson, 2018).

Second, there is a high prevalence of trauma and mental health disorders among the prison population (Fazel & Danesh, 2002; Wolff, Shi, & Siegel, 2009; Western, 2018). Time in prison may trigger mental health impediments, or it can exacerbate a pre-existing condition (Schnittker, Massoglia, & Uggen, 2012). Individuals who are incarcerated are more likely to have been exposed to early risk factors, such as addiction, child abuse and neglect, and childhood poverty (Schnittker, Massoglia, & Uggen, 2012). Adolescents who have been adjudicated tend to have a higher prevalence of mental health issues when compared with the general population (Cocozza & Skowrya, 2000; Snyder, 2004; Teplin et al., 2007). Physical and mental health issues that persist at the time of release may negatively affect employment and family stability and impede successful reentry (Link, Ward, & Stansfield, 2019). Unresolved past trauma, which often originates long before prison, can feed intense feelings of injustice, anger, despair, and powerlessness, creating major barriers to desistance from crime (Kazemian, 2020). Individuals who are incarcerated need more targeted and regular mental health follow-ups that tackle the root causes of violence.

Third, prison misconduct can be a poor indicator of desistance from crime. Although some research has found that prison misconduct is a significant predictor of post-release recidivism (e.g., Cochran et al., 2014), these studies do not take into account the level of involvement in misconduct or the reasons for engaging in these behaviors. Given the restrictive nature of the prison environment, rule-breaking behaviors may reflect attempts to survive and cope with imprisonment (Ugelvik, 2014). Individuals can engage in rule-breaking behaviors in prison and, at the same time, maintain a narrative that is consistent

with the desistance framework (Kazemian, 2020). Rule violations are not always indicative of an intention to persist in crime. Ghandnoosh (2018) highlighted the paradox between the importance granted by parole boards to the maintenance of social ties during periods of incarceration and the intolerance to misconduct aiming to sustain these ties (e.g., possession of contraband mobile phones and excessive physical contact with family members during visitations).

Although rule-breaking behavior in prison is often promptly sanctioned, progress is seldom acknowledged and rewarded. Positive changes that are unrecognized by others are referred to as “invisible desistance” (Kazemian, 2020). Our prisons have few mechanisms in place to recognize any form of progress exhibited by individuals who are incarcerated over time. The lack of positive reinforcement diminishes the level of motivation and investment in the process of change. The severity of the offense remains one of the top overriding factors in release decisions (Ruhland et al., 2016).

Fourth, prison adaptation creates many incongruences with the outside world. Prison interventions should be designed to ease the transition to the community after release. Temporary releases from prison provide an opportunity to bridge this gap; these programs have been linked to a reduced likelihood of post-release unemployment and a lower rate of return to prison (Helmus & Ternes, 2017). Individualized sentence planning (i.e., a sentence plan that is tailored to the individual's needs) should ideally begin during the initial phase of the sentence and draw on principles of the strengths-based approach. The view that preparation for release is not relevant during the early stages of a prison sentence is out of date and inconsistent with what we know about the process of desistance from crime.

Individuals may adopt strategies that are well adapted for survival in prison, but that may be unsuitable for life on the outside (Jamieson & Grounds, 2005; Kazemian & Travis, 2015; Kazemian, 2020). These coping strategies may include a loss of empathy for others, self-isolation, emotional suppression, becoming “hardened and emotionless,” heightened feelings of mistrust toward others, learning to be “hateful,” and a progressive detachment from the outside world (Kazemian, 2020). To promote desistance from crime and successful reintegration, our prisons need to be more compatible with the outside world. One thing is clear: Our prison system, in its current form, makes it extremely difficult for individuals to thrive during and after periods of incarceration.

Prison-based interventions are implemented across the country, but rigorous evaluations remain scarce and the effects of most prison programs on recidivism and desistance remain unknown (Byrne, 2020). The National Research Council (2014) summarized some of the most promising prison interventions for juveniles and adults in efforts to reduce recidivism: cognitive behavioral therapy, substance use treatment, educational programs, and vocational training — although systematic evaluations have been scarce. Specifically, the report noted

that “research has as yet not resolved the critical issues of what works for whom, when, why, and under what circumstances” (p. 197). For instance, prison education programs may have differential effects on post-release employment and recidivism outcomes depending on the level of education attained (i.e., high school or GED versus post-secondary degree) (Duwe & Clark, 2014). We still know little about how to adapt desistance-promoting interventions to the prison setting; research and systematic evaluations are lacking in this area. It is also crucial to better understand whether program participation constitutes a signal of desistance (Byrne, 2020).

Few studies have investigated the impact of quality of life in prison on recidivism and desistance from crime. One study found that disciplinary segregation affects employment and recidivism outcomes after release (Wildeman & Andersen, 2020). Some research has underscored the features of the architectural design of prisons that may be conducive to more effective rehabilitation services and that may “inspire prisoners and motivate them to lead better lives” (Jewkes, 2018, p. 329; see also St. John et al., 2019). These are key areas for exploration as we work on reimagining our prison system.

Desistance-Promoting Practices in Reintegration Efforts

The obstacles faced by individuals who were formerly incarcerated are similar to the impediments identified in the research literature on desistance from crime. These include strains on family relationships, difficulties in securing housing, lack of marketable skills, laws and policies that restrict hiring of individuals with a history of incarceration, limited access to educational resources, unemployment, physical and mental health issues, and substance abuse problems (National Research Council, 2014; Petersilia, 2009; Richards & Jones, 2004; Travis, 2005; Travis & Petersilia, 2001). Young people may face unique reintegration barriers upon release from secure confinement, such as the school’s lack of receptiveness to receiving them, undiagnosed developmental disabilities, a return to violent family environments, crime-promoting peer networks, and challenges in securing employment due to low educational attainment (Howell, Feld, & Mears, 2012). Two crucial areas are often at the core of social policies that impede successful reintegration and desistance from crime, especially in the transition to adulthood: housing and employment.¹⁴

Stable housing is widely recognized as an integral component of personal and family well-being (Bratt, 2001; Lee, Tyler, & Wright, 2010). The ability to secure housing after release from prison has been associated with lower rates of recidivism (Makarios, Steiner, & Travis, 2010; Petersilia, 2009). Individuals with a history of incarceration are more likely to face housing insecurity (Geller &

¹⁴ This section draws on Kazemian and Walker’s (2019) review.

Curtis, 2011). Access to housing affects other barriers to successful reintegration. For instance, housing security is a key factor in both obtaining and maintaining employment (Bradley et al., 2001). It provides an environment in which the individual can reconnect with his or her family after a prison sentence, and may reduce the likelihood of reoffending (Hairston, 2003; Sullivan et al., 2002).

Employment is also a key factor in successful reintegration after release from prison. Individuals who cannot secure employment after release from custody are at an increased risk of recidivism (Petersilia, 2009; Wang, Mears, & Bales, 2010; D'Alessio, Stolzenberg, & Eitle, 2014). The experience of incarceration results in a decreased likelihood of securing a job, especially one with reasonable pay (Western, 2002). A study commissioned by the Pew Charitable Trusts (2010) found that employment disadvantage resulting from imprisonment reduced wages by an average of \$179,000 by age 48, excluding wages lost during incarceration.

Some surveys have suggested that approximately 40% of employers would not hire an individual with a criminal record (Holzer, Raphael, & Stoll, 2007; Pager, 2007). Policies that restrict access to employment are particularly detrimental to the desistance process because integration to the job market is vital to fulfill basic financial needs. Employment discrimination is heavily skewed toward minorities. In the context of employment, Pager (2003) found that the likelihood of securing employment was lower among Black males *without* a criminal record (14%) than among white males *with* a criminal record (17%). White males without a criminal record were most likely to be called back by employers (30% of cases), whereas Black males with a criminal record were least likely to be called back (5% of cases).

The Limits of Criminal History as an Indicator of Future Offending

Criminal history information has become increasingly accessible to the public, including potential employers, landlords, and even romantic partners (Uggen & Blahnik, 2016), and this has intensified the labeling effects of a criminal record. The potential for misuse, labeling, and discrimination has increased with the widespread online availability of criminal records information (Lageson, 2020; Lageson & Maruna, 2018). This new reality highlights the potentially crucial role of expungement laws, which can reduce the stigma of a criminal record, level the playing field, and produce better employment outcomes without any detriment to public safety (Prescott & Starr, 2020).

Not all criminal records are equal. Criminal histories have a diminished ability to accurately predict offending behavior over time, and the mere existence of a criminal record is not sufficient to predict the risk of reoffending. This bears relevance for various social policies — including housing and employment

decisions — that rely on criminal records searches to assess risk. Two features of a criminal history are noteworthy.

First, the amount of time elapsed since the last offense is an important feature of criminal histories. There is no compelling empirical evidence to suggest that old criminal records are predictive of future offending. Kurlychek and colleagues (2006, 2007) estimated that the future arrest risk of individuals who remain arrest-free for approximately seven years becomes nearly indistinguishable from that of individuals with no criminal record. Researchers agree on this point: The longer the time interval since the last crime, the less likely it becomes that the individual will engage in crime in the future (Blumstein & Nakamura, 2009; Kazemian & Farrington, 2006, 2018). Lifetime bans against individuals with a criminal record have no empirical basis.

Second, the degree of involvement in crime (i.e., the total number of crimes committed) is also an important factor in the assessment of risk. Combined with recency, a higher frequency of past crimes is more likely to indicate a pattern of persistent offending (Moffitt, 1993; Piquero, Farrington, & Blumstein, 2003). Individuals who offended only once pose a reduced risk of reoffending when compared with individuals who have committed a higher number of crimes in the past (Zara & Farrington, 2016). Hester (2019, p. 370) concluded that “if prior record is being used in some part as an indicator of recidivism risk, then at a minimum, jurisdictions should validate their criminal history scores and adjust accordingly.”

Desistance-Promoting Reintegration Policy and Practice

Some laws create unnecessary stigma and social exclusion with no pragmatic benefit. For instance, some research has suggested that individuals convicted of sex offenses will not typically be reconvicted for another sex crime, even over long follow-up periods (i.e., 35 years) (Hargreaves & Francis, 2014). In fact, most juveniles convicted of sex offenses do not have sex offense convictions in adulthood (Lussier & Blokland, 2014). Consequently, lifetime sex offender registration laws have limited public safety benefits, impede reintegration efforts, and may promote reoffending among individuals who would have otherwise desisted from crime. We need reentry practices that reward paths to redemption.

Travis (2000, p. 8) offered a new vision for reintegration in the form of “reentry courts.” In an ideal world without budgetary constraints, these post-prison courts would feature “a ‘contract’ drawn up between court and offender, discretion on the judge’s part to impose graduated sanctions for various levels of failure to meet the conditions imposed, [and] the promise of the end of supervision as an occasion for ceremonial recognition.” Importantly, this model would provide positive reinforcement in the form of public ceremonies to acknowledge success. The National Research Council (2008) noted the implementation

challenges in the original Reentry Court Initiative, spearheaded by the Office of Justice Programs. Reentry courts seem promising to foster desistance-promoting reintegration, but better implementation and evaluations are needed. Individualized reentry plans prior to release would also help ease the transition to the community, but this practice cannot realistically be adopted until we reduce the size of our prison population (National Research Council, 2008).

There are several promising intervention models that are consistent with a desistance-promoting reintegration framework. For instance, the Reentry Partnership Initiative involves collaborative efforts between law enforcement and correctional agencies. This model is based on a problem-solving approach and entails police involvement at all three phases: the institutional phase, the structured reentry phase, and the community reintegration phase. Police “visit offenders in prison prior to release ... and when police interact with offenders once they return to the community, it is *before*, not after, a problem occurs” (Byrne & Hummer, 2004, p. 68). This approach highlights the benefits of interagency collaborations in fostering desistance from crime, both for juvenile and adult reentry efforts (Watson, 2004).

Another desistance-promoting reentry intervention is the EMPLOY program, an initiative adopted in Minnesota to help individuals obtain and retain employment after release from incarceration (Duwe, 2015). This program involved two eight-hour meetings with a job training specialist about 60 to 90 days prior to release, with an assessment of the individual’s skillset, résumé preparation, and guidance on how to conduct a job search and interviews. Participants were required to produce a résumé prior to release. Meetings continued between participants and job retention specialists one month, three months, six months, and 12 months after release. Using a matched sample, results showed that individuals who participated in the initiative were less likely to be rearrested, reconvicted, or reincarcerated or to have their parole revoked due to a technical violation when compared with the matched group who had not participated in the program.

The EMPLOY program highlights four crucial elements of a successful reentry program. First, the intervention was initiated prior to release, which better prepared participants for the transition to the outside world. Second, the follow-up continued on a consistent basis in the year following release; this is a particularly crucial time because most relapses into recidivism tend to occur in the short time following release (Alper, Durose, & Markman, 2018). Third, the program tackled one of the major barriers to successful reentry and to the process of desistance from crime — employment. Lastly, the program was not imposed on individuals; the participants became active agents in their reintegration process.

Finally, reintegration can be most effective when it draws on the strengths and skillsets of the community that has been directly involved in the criminal justice

system. Individuals who have successfully transitioned from incarceration to life on the outside serve as excellent mentors to those who are in the early phases of reentry. Therapeutic communities and programs such as Alcoholics Anonymous and Narcotics Anonymous, which are led by credible messengers, offer valuable and crucial support to individuals as they face the challenges of returning to society. Such mentoring initiatives can cultivate desistance efforts and help both the person providing the help and the person being helped (Riessman, 1965; Maruna, 2001; LeBel, 2007).

Conclusion

This paper summarized the state of knowledge on desistance from crime, particularly as it pertains to the transition from adolescence to adulthood, and offered applications to various areas of criminal justice. Some concluding observations are offered below.

The key distinction between recidivism-focused and desistance-promoting approaches is that the former predominantly focus on a negative outcome (i.e., crime), whereas the latter seek to track positive outcomes that may result in reduced involvement in offending over time and ultimately lead to the complete cessation of criminal behavior. Because progress and positive change are seldom acknowledged, many individuals involved in the criminal justice system find little incentive to engage in efforts to make progress toward desistance. For practitioners and policymakers, a paradigm shift from recidivism to desistance entails a willingness to: (1) make assessments that extend beyond behavioral outcomes and include other known correlates of desistance, (2) track progress as well as failures, and (3) recognize that setbacks are part of the process of change. Interventions such as Operation Ceasefire have taught us that to prevent more serious forms of crime, we sometimes need to have some tolerance for more minor forms of law violation that do not necessarily compromise public safety. Research is needed in this area to assess the threshold that constitutes a temporary setback versus an indication of continued persistence in crime. The importance of shifting from a recidivism-focused to a desistance-promoting approach has been acknowledged on a theoretical level, but it has not yet been integrated in our intervention efforts. We need to better specify what a desistance-promoting model would look like in practice.

No single criminal justice agency can promote desistance on its own. Partnerships across state and federal agencies — along with the support of family and community resources — are instrumental in supporting the process of desistance from crime and reducing recidivism. Some of the most promising criminal justice interventions have relied on collaborative efforts between law enforcement, prosecution, correctional agencies, the community, and individuals involved in offending. To maximize the odds of desistance from crime, the juvenile justice system specifically would greatly benefit from more structured

partnerships with other systems that serve youth, including mental health, child welfare, and education services.

The empirical literature has identified different prompts for desistance from crime, whether they be in the form of marriage, employment, peer relationships, or changes in identity. Ultimately, there is no single framework that will explain desistance for all individuals. The ability of life events to shape behavior depends on the extent to which they enable individuals to find purpose and meaning to their lives. The same is true for our assessment of criminal justice interventions. Instead of simply asking *what works*, the better questions are: *what works, for whom, and when?* There is no one-size-fits-all program that is effective for everyone, juveniles and adults, at all stages of the life-course.

Evidence-based programs in juvenile justice are scarce and, among those that do exist, few have been adopted at the national level (Elliott et al., 2020). Elliott and colleagues (2020, p. 1320) noted that “it is naive to assume that once a new innovative program or practice has been demonstrated to be more effective than existing institutional practice it will be widely disseminated within a year or two, and within a few more years will be firmly embedded in any institutional system.” This is true not only in juvenile justice but in institutional systems more broadly. Ultimately, social policy reform takes time, and the impact of our efforts may not be immediately detectable on a large scale. If rehabilitative interventions have failed to exert a significant impact on recidivism rates, it may be that we have not yet achieved the type of broad implementation that would be required to see a change in aggregate reoffending rates.

Desistance-promoting interventions logically aim to tackle the individual risk factors that are conducive to crime, but we also need to acknowledge the systemic inequities that render desistance from crime difficult to achieve, even with the highest level of motivation to change. The social climate is now ripe for us to reexamine laws that result in the disparate treatment of communities of color (Ghandnoosh, 2015; Bradner & Schiraldi, 2020). The exposure to socioeconomic disadvantage and the accumulation of traumatic experiences across the life-course can fuel intense feelings of anger and perceived injustice. These are some of the greatest individual impediments to the process of desistance from crime (Kazemian, 2020).

There will inevitably be a small proportion of individuals who will defy the predictions of the age-crime curve and remain active in crime later in life. We cannot ignore the risk that these individuals pose to public safety, and they should be assessed on a case-by-case basis. However, it would be unwise to implement criminal justice policy and practice on the basis of these outlier cases. Imposing more punishment than what is necessary needlessly delays the process of desistance from crime for individuals who would have otherwise desisted naturally.

Many of the ideas suggested in this paper can be effective only if we reduce the number of people under correctional control. Some of the desistance-promoting supervision strategies that have been embraced in Europe cannot be realistically adopted in the United States if parole and probation officers continue to be responsible for an exceedingly high workload. We need to reassess the extent to which we punish all individuals who offend, even those who have engaged in violent crimes; they represent more than half of those incarcerated in state prisons (Carson, 2020). Mauer (2015) called for a 20-year cap on federal prison sentences, with provisions to extend these sentences in exceptional cases. This is a laudable suggestion, but given that incarceration rates are mostly driven by state-level criminal justice policies, states need to be at the helm of criminal justice reform.

To conclude, advocating for a reduction in the number of people incarcerated for violent crimes does not suggest that we should tolerate violence, but rather that we should shift our focus from reactive responses to preventive strategies to address the problem. A desistance-promoting criminal justice system would resort to the harshest forms of punishment as a last recourse, not as the first option. Retributive sanctions may serve a moral purpose, but we must acknowledge that they are often at odds with the desistance framework and crime prevention efforts. We need courageous leaders who are receptive to adopting innovative strategies to reduce reoffending and who are willing to invest in long-term solutions that will promote desistance from crime. These commissioned papers are a strong step forward in that direction.

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Appendix 1: Concepts of the Developmental Perspective in Criminology

Concept	Description
<i>Descriptive Parameters</i>	
Prevalence/ Participation	Proportion of individuals in a population or sample who committed one or more crimes; can be current (e.g., one year) or cumulative (i.e., lifetime prevalence)
Frequency/Lambda	Number of crimes committed by an individual within a given time period; can be annual or cumulative (i.e., the entire criminal career)
Crime mix	Number of individuals who have committed each of the different categories of crimes considered
Seriousness	Can be determined based on legal classifications (e.g., misdemeanor vs. felony) or by ratings of severity by experts or the population
Variety	Number of categories of crimes committed by an individual
<i>Temporal Boundary</i>	
Age at onset	Age at which an individual commits his or her first crime
Age at termination	Age at which an individual commits his or her last crime
Duration	Time interval between the first and the last crime
Transfer	Transfer from one type of criminal activity to another or from juvenile delinquency to adult criminality
<i>Dynamic Mechanisms</i>	
Activation	Process by which the development of criminal activities is initiated and stimulated
Acceleration	Increase in frequency over time
Diversification	Increase in variety over time

Concept	Description
Stabilization	Increase in continuity of criminal activities over time
Aggravation	Process by which the development of criminal activities unfolds in a sequential, potentially orderly manner
Escalation	Increase in seriousness over time; the tendency to move from minor to more serious types of crimes
Developmental sequence	Progression of an individual in the initiation of different types of crimes or different forms of antisocial behavior (e.g., from minor delinquency to substance use, to serious delinquency)
Desistance	Process leading to the cessation of criminal activity, either partially or entirely
Deceleration	Decrease in frequency over time
De-escalation	Decrease in seriousness over time; the tendency to move from more serious to less serious types of crimes
Ceiling	Reaching a plateau or ceiling in the seriousness of criminal activity
Specialization	Decrease in variety over time

Source: Morizot & Kazemian (2015), p. 3.

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