

# CRIMINOLOGY

## THE HEDONIC CONSEQUENCES OF PUNISHMENT REVISITED

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*In recent years, legal scholars have become acutely concerned with the hedonic consequences of incarceration. Despite this interest, no research has simultaneously tested (1) whether current incarceration and recent incarceration lead to declines in happiness, and (2) whether the direct effects of imprisonment (what Gresham Sykes referred to as the “pains of imprisonment”) or the indirect effects of imprisonment (what scholars have come to call the “collateral consequences” of imprisonment) explain these effects, although there are compelling reasons to expect both. In this Article, we consider research on the causes of happiness and the consequences of incarceration to generate three hypotheses: the pains of imprisonment hypothesis, the incomplete adaptation hypothesis, and the selection hypothesis. We then use data from the Fragile Families and Child Wellbeing Study and an array of rigorous statistical methods to isolate effects of current incarceration and recent incarceration on happiness.*

*The results suggest that current incarceration has hedonic consequences, leading to statistically significant reductions in happiness across a range of statistical models. Indeed, current incarceration is the only factor more strongly correlated with current happiness than prior happiness. Furthermore, the indirect effects of imprisonment do little to explain these hedonic consequences, providing support for the pains of imprisonment hypothesis. The only inmates whose happiness does not*

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*follow this pattern were affectively unusual. They either disproportionately suffered from depression before incarceration or were profoundly unhappy prior to their incarceration (suggesting they had little possibility of becoming less happy while incarcerated). Recent incarceration, on the other hand, has no discernible effects on happiness after accounting for existing individual personality traits. Taken together, these results suggest that in terms of happiness lost, it is possible to match punishments with crimes.*

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#### INTRODUCTION

The degree to which imprisonment exacts a toll on individuals' well-being is both an empirical question and an important concern for the legal profession. It is an empirical question because it can be addressed causally by measuring the well-being of individuals before, during, and after imprisonment, thereby assessing how their well-being changes as a function of prison or jail sentences. It is an important concern for the legal profession because it relates to the proportional severity of sentencing. Empirical estimates of the hedonic consequences of incarceration would provide justification for asserting that a punishment fits the crime<sup>1</sup> and

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<sup>1</sup> See John Bronsteen et al., *Happiness and Punishment*, 76 U. CHI. L. REV. 1037, 1041 (2009) (arguing that to know the range of the hedonic consequences of imprisonment, we must know the immediate and lasting consequences of imprisonment for happiness). For

would be especially informative if they simultaneously addressed the effects of current incarceration and prior incarceration on prisoners' happiness. By distinguishing the two, moreover, it is possible to assess where the effects of incarceration on happiness emerge: from the direct consequences of imprisonment, what Gresham Sykes called "the pains of imprisonment" in his classic work *The Society of Captives*,<sup>2</sup> or from the indirect social consequences of previous incarceration.<sup>3</sup>

Given the clear importance of this topic for aligning the severity of punishments with the severity of crimes, this topic has generated much debate,<sup>4</sup> especially since the publication of John Bronsteen and his colleagues' article, *Happiness and Punishment*, in the *University of Chicago Law Review*.<sup>5</sup> They detail the complications of the hedonic adaptation literature and the importance of understanding this literature as it applies to incarceration. Mostly using examples regarding other life events, they argue for the complicating influence of adaptation, noting above all that adaptation might deprive incarceration of its proportionality, diminishing its putative negative effects while in prison but doing little to offset its negative effects after release.<sup>6</sup> This possibility is inconsistent with the intuitions ordinarily used in the law,<sup>7</sup> but as there is little empirical research directly on the topic, it is unclear whether adaptation actually applies to incarceration and, if so, how.

At present, empirical research on the hedonic consequences of punishment addresses the relationship in a piecemeal and cross-sectional fashion. For example, research explores happiness upon prison entry and throughout the incarceration period,<sup>8</sup> as well as mental health among former inmates,<sup>9</sup> but no research considers the same people at different times in the

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two critiques, see generally David Gray, *Punishment as Suffering*, 63 VAND. L. REV. 1619 (2010), and Dan Markel et al., *Beyond Experience: Getting Retributive Justice Right*, 99 CALIF. L. REV. 605 (2011). Both articles argue against the subjectivist line of inquiry in general and propose an objectivist account based on redistributive justice.

<sup>2</sup> GRESHAM M. SYKES, *THE SOCIETY OF CAPTIVES: A STUDY OF A MAXIMUM SECURITY PRISON* 63–83 (2007).

<sup>3</sup> See, e.g., *INVISIBLE PUNISHMENT: THE COLLATERAL CONSEQUENCES OF MASS IMPRISONMENT* (Marc Mauer & Meda Chesney-Lind eds., 2002) (providing one of the first edited volumes on this general topic).

<sup>4</sup> See, e.g., Bronsteen et al., *supra* note 1; Gray, *supra* note 1; Markel et al., *supra* note 1.

<sup>5</sup> See Bronsteen et al., *supra* note 1.

<sup>6</sup> *Id.* at 1041–55.

<sup>7</sup> *Id.* at 1038–39.

<sup>8</sup> For the most exhaustive review of this literature, which we summarize later, see *id.* at 1046–49.

<sup>9</sup> See generally Jason Schnittker et al., *Out and Down: Incarceration and Psychiatric Disorders*, 53 J. HEALTH & SOC. BEHAV. 448 (2012) (arguing that prior incarceration is

process, an oversight that makes it impossible to gauge the full hedonic costs of incarceration. Additionally, previous research does little to test whether the direct or indirect consequences of current and recent incarceration drive declines in happiness. Thus, we lack empirical evidence regarding whether the hedonic consequences of incarceration are causal, if they persist after prison release, and what mechanisms explain such effects. Despite strong reasons to believe incarceration diminishes happiness, we do not know if it actually does.

The lack of empirical research is surprising because social scientists, from Alexis de Tocqueville<sup>10</sup> to Gresham Sykes<sup>11</sup> to Donald Clemmer<sup>12</sup> to Erving Goffman<sup>13</sup> to Michel Foucault,<sup>14</sup> have long been fascinated by the consequences of confinement for the subjective well-being of individuals. Indeed, social scientists were concerned about the pains of imprisonment<sup>15</sup> before they were concerned about most other consequences of incarceration. In recent years, however, the literature has focused less on the pains of imprisonment and more on other consequences of incarceration, such as labor market prospects,<sup>16</sup> family life,<sup>17</sup> and health.<sup>18</sup>

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associated with poor mental health and that some of this association results from causal effects of incarceration).

<sup>10</sup> See ALEXIS DE TOCQUEVILLE, *DEMOCRACY IN AMERICA* (Arthur Goldhammer trans., 2004) (1835).

<sup>11</sup> See SYKES, *supra* note 2, at 63–83.

<sup>12</sup> See generally DONALD CLEMMER, *THE PRISON COMMUNITY* (1940).

<sup>13</sup> See generally ERVING GOFFMAN, *ASYLUMS: ESSAYS ON THE SOCIAL SITUATION OF MENTAL PATIENTS AND OTHER INMATES* (1961).

<sup>14</sup> See generally MICHEL FOUCAULT, *DISCIPLINE AND PUNISH: THE BIRTH OF THE PRISON* (Alan Sheridan trans., 1977) (1975).

<sup>15</sup> See SYKES, *supra* note 2, at 63–83.

<sup>16</sup> For empirical work on this topic, see, for example, Devah Pager, *The Mark of a Criminal Record*, 108 AM. J. SOC. 937, 961 (2003) (considering how random assignment of a drug felony influences the probability of receiving a callback for a job in Milwaukee and finding substantial negative effects); Bruce Western, *The Impact of Incarceration on Wage Mobility and Inequality*, 67 AM. SOC. REV. 526, 541–42 (2002) (showing that incarceration leads to stagnations in wage growth that contribute modestly to black–white earnings inequality). For a review of the broader literature on the consequences of incarceration for labor market outcomes, see Sara Wakefield & Christopher Uggen, *Incarceration and Stratification*, 36 ANN. REV. SOC. 387, 394–96 (2010).

<sup>17</sup> For three qualitative studies in this vein, see generally DONALD BRAMAN, *DOING TIME ON THE OUTSIDE: INCARCERATION AND FAMILY LIFE IN URBAN AMERICA* (2004) (providing a broad overview of the consequences of incarceration for family life through an ethnographic analysis of a high-incarceration neighborhood in the District of Columbia); MEGAN COMFORT, *DOING TIME TOGETHER: LOVE AND FAMILY IN THE SHADOW OF THE PRISON* (2008) (employing ethnographic methods and interviews to show how having a romantic partner incarcerated is both advantageous and damaging for women); ANNE NURSE, *FATHERHOOD ARRESTED: PARENTING FROM WITHIN THE JUVENILE JUSTICE SYSTEM* (2002) (showing how incarceration changes paternal involvement). For three quantitative studies in this vein, see

It is time to empirically extend this literature to subjective well-being with Bronsteen and colleagues as a guide.

In this Article, we use data from the Fragile Families and Child Wellbeing Study, which is a longitudinal study of urban families with a child born between 1998 and 2000, to explore whether and how current incarceration and recent incarceration (incarceration in the past two years) affect happiness. A focus on the dynamics of incarceration allows us to assess how long the hedonic consequences of incarceration persist. The data also permit an exploration of the collateral consequences of incarceration, thereby allowing us to address why incarceration decreases happiness. Following this Introduction, our study is divided into four parts. In Part I, we use prior research on the causes of happiness, as well as on the direct and indirect effects of incarceration, to propose three hypotheses, which we refer to as (1) the pains of imprisonment hypothesis, (2) the incomplete adaptation hypothesis, and (3) the selection hypothesis. In so doing, we also demonstrate that, despite extensive speculation, the average

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generally Leonard M. Lopoo & Bruce Western, *Incarceration and the Formation and Stability of Marital Unions*, 67 J. MARRIAGE & FAM. 721, 731–32 (2005) (demonstrating that currently but not formerly incarcerated men are more likely to divorce and less likely to marry); Michael Massoglia et al., *Stigma or Separation? Understanding the Incarceration-Divorce Relationship*, 90 SOC. FORCES 133, 149 (2011) (showing that the incarceration-divorce relationship is driven by time spent apart); Christopher Wildeman, Jason Schnittker & Kristin Turney, *Despair by Association? The Mental Health of Mothers with Children by Recently Incarcerated Fathers*, 77 AM. SOC. REV. 216, 217–18, 234 (2012) (showing that women who share children with recently incarcerated men are more dissatisfied and more likely to be depressed than their counterparts). For a review, see generally Christopher Wildeman & Christopher Muller, *Mass Imprisonment and Inequality in Health and Family Life*, 8 ANN. REV. L. & SOC. SCI. 11 (2012).

<sup>18</sup> For recent empirical work on this subject, see, for example, Rucker C. Johnson & Steven Raphael, *The Effects of Male Incarceration Dynamics on Acquired Immune Deficiency Syndrome Infection Rates Among African American Women and Men*, 52 J.L. & ECON. 251, 286 (2009) (showing that racial disparities in imprisonment explain the lion's share of racial disparities in AIDS infection rates); Michael Massoglia, *Incarceration as Exposure: The Prison, Infectious Disease, and Other Stress-Related Illnesses*, 49 J. HEALTH & SOC. BEHAV. 56, 66–67 (2008) [hereinafter Massoglia, *Incarceration as Exposure*] (demonstrating that a history of incarceration is associated with significantly elevated risks of infectious and stress-related diseases at age forty); Michael Massoglia, *Incarceration, Health, and Racial Disparities in Health*, 42 LAW & SOC'Y REV. 275, 290–93 (2008) [hereinafter Massoglia, *Incarceration, Health, and Racial Disparities*] (showing that prior incarceration is associated with substantial declines in self-rated health); Jason Schnittker & Andrea John, *Enduring Stigma: The Long-Term Effects of Incarceration on Health*, 48 J. HEALTH & SOC. BEHAV. 115, 121–23 (2007) (showing that current incarceration is associated with a greater likelihood of severe health limitations and a history of incarceration is linked with increases in those health problems). For one recent review, see Jason Schnittker et al., *Incarceration and the Health of the African American Community*, 8 DU BOIS REV. 133 (2011).

effects of current and recent incarceration remain unknown. In Part II, we describe our data source and the analytic strategies used to examine relationships between current incarceration, recent incarceration, and happiness. In Part III, we present and summarize our results. In Part IV, we discuss limitations of our analysis, suggestions for related future research, and the implications of our results for the law.

### I. THE HEDONIC CONSEQUENCES OF INCARCERATION

To develop hypotheses concerning the hedonic consequences of incarceration, we start by reviewing research on factors linked to happiness with an emphasis on how adaptation and stable individual traits drive the happiness of individuals to rapidly stabilize to their previous levels, even after experiencing extreme shifts in life circumstances. We then review the literature on the effects of incarceration in two parts. First, we discuss the pains of imprisonment, which we refer to as the direct drivers of incarceration's hedonic consequences. Second, we consider the effects of incarceration on economic well-being, family life, and health, paying attention to the differential effects of current and recent incarceration on these outcomes. We refer to these as the indirect drivers of incarceration's hedonic consequences.

Next, we link the literature on the causes of happiness and the literature on the consequences of incarceration to derive three hypotheses. The first, the pains of imprisonment hypothesis, suggests that current incarceration has large, negative effects and that recent incarceration has no hedonic consequences because most of the effects of incarceration are driven by the direct effects of incarceration.<sup>19</sup> The second hypothesis, the incomplete adaptation hypothesis, proposes that incarceration has both immediate and enduring negative effects on happiness, resulting from both

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<sup>19</sup> See generally Bronsteen et al., *supra* note 1, at 1041–42 (“These studies, whether examining responses to income gains, tenure denial, or disability, often report similar findings: Most people are reasonably happy most of the time, and most events do little to change that for long.” (internal quotation marks and citations omitted)); see also *id.* at 1040 (“Among its most robust and consistent findings are two that are highly relevant to the study of punishment: (1) many life events, whether positive or negative, exert little lasting effect on an individual’s well-being because people adapt rapidly to them; and (2) people do not recognize or remember how quickly they adapt and thus make very poor estimates about the hedonic impact of future events. Studies have shown that a person’s well-being initially decreases but soon rebounds (at least to some meaningful degree) following negative experiences of all magnitudes, ranging from learning that she scored poorly on a personality test to becoming paraplegic.” (internal citations omitted)). Based on their review of the adaptation literature, it would also be reasonable to expect former prisoners to adapt following incarceration, returning to pre-incarceration levels of happiness.

direct and indirect effects.<sup>20</sup> The final hypothesis, the selection hypothesis, suggests that neither current incarceration nor recent incarceration has hedonic consequences. According to this perspective, currently or recently incarcerated men are not unhappy because of their incarceration, but because the forces that led them to prison (such as antisocial personalities) are themselves associated with unhappiness, rendering adaptation largely irrelevant to understanding the relationship between incarceration and happiness.

#### A. THE CAUSES OF HAPPINESS

Research on happiness has burgeoned throughout the last decade, but an especially important insight relates to the stability of a person's happiness in dynamic environments. Adaptation refers to the tendency of even severe life events to have only temporary effects on well-being. Happiness tends to rebound to prior levels after both positive and negative life events. In a particularly famous example, Philip Brickman and colleagues demonstrated that neither lottery winners nor quadriplegics show long-lasting changes in their well-being.<sup>21</sup> Consistent with this, other research also showed that baseline happiness is not affectively neutral and that both groups are moderately happy years later.<sup>22</sup> There are a variety of explanations for this persistence, but evidence suggests that personality traits push happiness to long-run levels and, further, that individuals have more resilience than they recognize, leading them to therefore overestimate the negative consequences of events. There are some situations, however, that lead to lasting declines in well-being. Some events, including, for

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<sup>20</sup> This hypothesis is summarized by Bronsteen and colleagues. See Bronsteen et al., *supra* note 1, at 1043 (“Although adaptation is common, further research has demonstrated its limits. People seem less likely to adapt to some health-related stimuli like noise, chronic headaches, and certain degenerative diseases such as rheumatoid arthritis, multiple sclerosis, HIV/AIDS, and hepatitis C infections.” (internal citations omitted)). As they also note:

Prison has a more complicated effect on happiness. To a noteworthy degree, people adapt to being in prison. Their happiness drops at the beginning and they expect it to remain at that low ebb, but it ascends as they adjust to their new surroundings. On the other hand, virtually any period of incarceration, no matter how brief, has consequences that negatively affect prisoners' lives in ways that resist adaptation, even after they have been released. Prisoners are often abandoned by their spouses and friends, face difficulty finding and keeping employment, and may suffer incurable diseases contracted during their incarceration. Thus, living in prison itself becomes less oppressive with time, but the effects of having been in prison tend to linger and to diminish happiness indefinitely.

*Id.* at 1038.

<sup>21</sup> See Philip Brickman et al., *Lottery Winners and Accident Victims: Is Happiness Relative?*, 36 J. PERSONALITY & SOC. PSYCHOL. 917, 923–24 (1978).

<sup>22</sup> See Ed Diener et al., *Subjective Well-Being: Three Decades of Progress*, 125 PSYCHOL. BULL. 276, 286 (1999).

example, unemployment, are difficult to adapt to and cause chronic problems that keep happiness suppressed. Similarly, widowhood leads to lasting declines in happiness, suggesting that whatever adaptation occurs happens slowly.<sup>23</sup>

With respect to incarceration, the adaptation literature presents a paradox. On one hand, if individuals adapt to incarceration in a similar manner as they adapt to many other life events, the putative negative effects of incarceration may be overstated. Furthermore, the effects of incarceration may be insensitive to sentence length insofar as individuals eventually adapt to imprisonment, regardless of the length. On the other hand, the adaptation literature heightens the relevance of post-release experiences for happiness, which are generally neglected in sentencing decisions and in the literature on the psychological consequences of incarceration. But insofar as incarceration leads to persistent difficulties with reintegration, including social isolation and diminished socioeconomic attainment, its long-run effects may greatly exceed its short-run effects. The balance of these two concerns depends on how one conceptualizes the direct and indirect effects of incarceration. Bronsteen et al. provide an excellent review of the adaptation literature,<sup>24</sup> but we pay particular attention to what this literature says with respect to understanding the dynamics of incarceration and well-being and, thus, to what the literature potentially says about causal effects. We also pay attention to effects that may minimize an inmate's potential for adaptation. These considerations allow us to meaningfully distinguish several hypotheses.

## B. THE DIRECT AND INDIRECT CONSEQUENCES OF INCARCERATION

### 1. *The Direct Consequences of Incarceration*

Previous research on the direct consequences of incarceration presents a compelling case that incarceration decreases happiness, although as mentioned earlier, there is limited empirical research directly on point. To begin with, research on the incarceration experience—what we call the direct consequences of imprisonment—suggests that prisons and jails, even though they provide prisoners with basic necessities for survival, are straining places to live.<sup>25</sup> Incarceration involves at a minimum isolation,

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<sup>23</sup> See Richard E. Lucas et al., *Reexamining Adaptation and the Set Point Model of Happiness: Reactions to Changes in Marital Status*, 84 J. PERSONALITY & SOC. PSYCHOL. 527, 535–36 (2003).

<sup>24</sup> Bronsteen et al., *supra* note 1, at 1041–46.

<sup>25</sup> See SYKES, *supra* note 2, at 78–79 (“Imprisonment, then, is painful. The pains of imprisonment, however, cannot be viewed as being limited to the loss of physical liberty. The significant hurts lie in the frustrations or deprivations which attend the withdrawal of

confinement, and a loss of liberty and identity, all of which may reduce happiness. Incarceration also involves losing social relationships, as individuals are unable to communicate with their friends and loved ones outside of a rigidly demarcated schedule.<sup>26</sup> This loss of freedom, moreover, extends to nearly every aspect of inmates' lives, with tightly bounded scheduling of meals, play, sleep, and other activities.<sup>27</sup> With routinization comes a swift loss of the freedom of self-expression.<sup>28</sup> Inmates are no longer known by their occupations or personal relationships. In many cases, too, incarceration involves extreme social isolation for prisoners who—because of their rule violations, threats against them, or the danger they pose to themselves or others—are segregated from the prison community.<sup>29</sup>

The net effect of incarceration on well-being depends on both the prison environment and the capacity of inmates to adapt. Ordinarily, social support provides those not in prison with resources to cope with stressful circumstances, meaning the social isolation of prison may increase stress and decrease an inmate's capacity to adapt. Consistent with this idea, an important strand of early research on incarceration considers the concept of prisonization,<sup>30</sup> which explains how inmates come to cope with the experience of incarceration and why some inmates may adjust more successfully to the prison environment than others. In particular, prisoners

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freedom, such as the lack of heterosexual relationships, isolation from the free community, the withholding of goods and services, and so on. And however painful these frustrations or deprivations may be in the immediate terms of thwarted goals, discomfort, boredom, and loneliness, they carry a more profound hurt as a set of threats or attacks which are directed against the very foundations of a prisoner's being." Although Sykes pays little attention in this passage to the lack of safety prisoners must contend with, his discussion of these issues is nonetheless illuminating for our analysis.

<sup>26</sup> For an especially in-depth analysis of how these policies affect the romantic partners of prisoners, see generally COMFORT, *supra* note 17. For an analysis of how prisoners think these policies affect them, see NURSE, *supra* note 17, at 38–52.

<sup>27</sup> Furthermore, although existing literature suggests most prisoners adapt to routinization of prison life, some do not. For one example, see CHESTER HIMES, *THE COLLECTED STORIES OF CHESTER HIMES* 153 (1990). As Chester Himes notes in his fictional yet highly insightful short story *Prison Mass*, "He had been incarcerated for nine years but, in spite of that, he had never become amenable to prison discipline. The life of prescribed routine irked him intensely—to eat, sleep, talk, awake by formula. Breakfast at seven, dinner at eleven, supper at three, bedtime at nine." *Id.*

<sup>28</sup> A passage in the Himes story shows this change in identity. *See id.* at 147 ("*Just convicts. Soft-eyed embezzlers, granite-eyed killers, fair-faced thrill seekers, furtive-eyed rogues, obese bankers, oily-haired politicians, bandits, forgers, kidnappers.*").

<sup>29</sup> Such isolation often pushes inmates to their limits. *See* CRAIG HANEY, *REFORMING PUNISHMENT: PSYCHOLOGICAL LIMITS TO THE PAINS OF IMPRISONMENT* 206, 208, 215, 256–260 (2006).

<sup>30</sup> *See generally* CLEMMER, *supra* note 12; GOFFMAN, *supra* note 13; SYKES, *supra* note 2.

may adjust to their environment knowing there is little they can do to change it, a functional interpretation of adaptation.<sup>31</sup> Some prior studies find significant improvements in the well-being of inmates over time,<sup>32</sup> even among those in solitary confinement.<sup>33</sup>

## 2. *The Indirect Consequences of Incarceration*

Although the pains of imprisonment might dissipate over time, research nonetheless suggests that the direct effects of imprisonment on happiness are likely negative on average.<sup>34</sup> Yet these direct effects of incarceration may not be the only or most important ways in which incarceration diminishes happiness. For most inmates, the sentence itself is fairly short. The mark of a criminal record, however, lasts much longer. Indeed, a recent vein of research considers the other consequences of incarceration, focusing not on the harsh prison environment but on the effects of incarceration on economic well-being, family life, and health, all of which, in turn, shape happiness. To date, research on the hedonic consequences of incarceration has not gone far enough in emphasizing whether changes in economic well-being, family life, and health happen during incarceration or after release. This distinction, which we highlight throughout this Part, is of the utmost importance when considering the hedonic costs of incarceration because research on the causes of happiness suggests the moment of change is crucial.

Most research on the indirect consequences of incarceration focuses on economic well-being. As many researchers have noted, those who become incarcerated are excluded from the labor market.<sup>35</sup> The majority of inmates are employed in the formal or informal economy prior to imprisonment and, for these inmates, incarceration leads to job loss,<sup>36</sup> which is often associated with declines in happiness. Incarceration continues to exert a deleterious effect on the economic well-being of men after their release.<sup>37</sup> A criminal

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<sup>31</sup> See Shane Frederick & George Loewenstein, *Hedonic Adaptation*, in WELL-BEING: THE FOUNDATIONS OF HEDONIC PSYCHOLOGY 302, 302–03 (Daniel Kahneman et al. eds., 1999).

<sup>32</sup> See J. Stephen Wormith, *The Controversy Over the Effects of Long-Term Incarceration*, 26 CAN. J. CRIMINOLOGY 423, 431–33 (1984).

<sup>33</sup> See Peter Suedfeld et al., *Reactions and Attributes of Prisoners in Solitary Confinement*, 9 CRIM. JUST. & BEHAV. 303, 333–36 (1982).

<sup>34</sup> See Bronsteen et al., *supra* note 1, at 1046–49.

<sup>35</sup> For the first quantitative study in this area, see Bruce Western & Katherine Beckett, *How Unregulated Is the U.S. Labor Market? The Penal System as a Labor Market Institution*, 104 AM. J. SOC. 1030 (1999).

<sup>36</sup> See BRUCE WESTERN, PUNISHMENT AND INEQUALITY IN AMERICA 110–11 (2006).

<sup>37</sup> See Pager, *supra* note 16, at 960 (focusing on the consequences of incarceration for the employment outcomes of black and white men).

record reduces a person's earnings and leads to slower wage growth with age.<sup>38</sup> Further, having ever been incarcerated imperils the economic well-being of prisoners through other channels, such as the imposition of fines, fees, and other legal debt, all of which may be substantial<sup>39</sup> and have spillover effects on other aspects of their lives (i.e., by destabilizing their housing situations).<sup>40</sup>

There are also signs that both current incarceration and prior incarceration affect family life, especially including relationships with romantic partners and children. For one, current incarceration increases the risk of divorce,<sup>41</sup> likely because of the time spent apart from one's spouse.<sup>42</sup> Current incarceration also decreases the probability of marriage.<sup>43</sup> Evidence regarding the effects of current incarceration on parenting is less developed but generally points in a similar direction. Although incarceration gives men time to reflect on their families and may increase their motivation to invest in their children,<sup>44</sup> current incarceration impedes physical contact between fathers and children, which may weigh heavily on men as they serve the remainder of their sentences. It is less clear whether the effects of incarceration on relationships with romantic partners and children continue after men are released. For instance, quantitative research finds no evidence that ever-incarcerated men are less likely to marry or more likely to divorce as a result of their criminal records.<sup>45</sup> Prior incarceration is strongly associated with paternal involvement,<sup>46</sup> but most

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<sup>38</sup> See WESTERN, *supra* note 36, at 126.

<sup>39</sup> See Alexis Harris et al., *Drawing Blood from Stones: Legal Debt and Social Inequality in the Contemporary United States*, 115 AM. J. SOC. 1753, 1773 (2010).

<sup>40</sup> *Id.* at 1779; see also Amanda Geller & Marah A. Curtis, *A Sort of Homecoming: Incarceration and the Housing Security of Urban Men*, 40 SOC. SCI. RES. 1196 (2011); Barrett A. Lee et al., *The New Homelessness Revisited*, 36 ANN. REV. SOC. 501, 510 (2010).

<sup>41</sup> See generally Lopoo & Western, *supra* note 17.

<sup>42</sup> See generally Massoglia et al., *supra* note 17. But see COMFORT, *supra* note 17 (arguing that for some of those partners who do stay together, incarceration helps them cultivate a closer, more personal relationship, in part because men who struggle with addiction outside the prison walls get clean inside them).

<sup>43</sup> See Lopoo & Western, *supra* note 17, at 732.

<sup>44</sup> See NURSE, *supra* note 17, at 72 ("Most come home from prison with high expectations for their own behavior and that of their children. As described, many have spent hours in prison fantasizing about the relationship they will build with their children. They imagine activities that they will engage in together and how their children will act."). See Kathryn Edin et al., *Fatherhood and Incarceration as Potential Turning Points in the Criminal Careers of Unskilled Men*, in *IMPRISONING AMERICA: THE SOCIAL EFFECTS OF MASS INCARCERATION* 46 (Mary Pattillo et al. eds., 2004).

<sup>45</sup> See generally Lopoo & Western, *supra* note 41.

<sup>46</sup> But see Amanda Geller & Irwin Garfinkel, *Paternal Incarceration and Father Involvement in Fragile Families* 18 (Nat'l Ctr. for Fam. & Marriage Res., Working Paper

change in paternal involvement likely takes place during the incarceration period when men had little access to their children and not after release. Given the role of family life in happiness,<sup>47</sup> these effects could lead to significant declines in well-being among currently incarcerated men and, for some aspects of family life, among recently incarcerated men.

Finally, incarceration is associated with both physical and mental health. For many inmates, current incarceration may actually improve their health. Compared to similar men, prisoners have lower mortality rates,<sup>48</sup> fewer severe health impairments,<sup>49</sup> and more consistent medication use,<sup>50</sup> likely because of increased healthcare in prison. But research on mental health effects paints a different picture, with incarceration associated with increased odds of reporting symptoms consistent with depression.<sup>51</sup> After release, the health situation of former inmates changes. A history of being incarcerated is associated with higher rates of infectious and stress-related diseases,<sup>52</sup> more severe functional limitations,<sup>53</sup> and lower self-rated health.<sup>54</sup> In fact, many health consequences appear only after an inmate is first released from jail or prison. Existing evidence on the consequences of incarceration for mental health suggests that the effects of prior incarceration on a range of other health outcomes persist after release.<sup>55</sup>

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No. WP-12-10, 2012), available at <http://goo.gl/x1fjkM>; Kristin Turney & Christopher Wildeman, *Redefining Relationships: Explaining the Countervailing Consequences of Paternal Incarceration for Parenting* 30–31 (Nat'l Ctr. for Fam. & Marriage Res., Working Paper No. WP-13-01, 2013), available at <http://goo.gl/i3bp3m>.

<sup>47</sup> For three examples, see Norval D. Glenn & Charles N. Weaver, *The Contribution of Marital Happiness to Global Happiness*, 43 J. MARRIAGE & FAM. 161 (1981); Linda J. Waite, *Does Marriage Matter?*, 32 DEMOGRAPHY 483 (1995); Kristi Williams et al., *Nonmarital Childbearing, Union History, and Women's Health at Midlife*, 76 AM. SOC. REV. 465 (2011).

<sup>48</sup> For three recent examples, see generally Evelyn J. Patterson, *Incarcerating Death: Mortality in U.S. State Correctional Facilities, 1985–1998*, 47 DEMOGRAPHY 587 (2010); David L. Rosen et al., *All-Cause and Cause-Specific Mortality Among Black and White North Carolina State Prisoners, 1995–2005*, 21 ANNALS EPIDEMIOLOGY 719 (2011); Anne C. Spaulding et al., *Prisoner Survival Inside and Outside of the Institution: Implications for Health-Care Planning*, 173 AM. J. EPIDEMIOLOGY 479 (2011).

<sup>49</sup> See generally Schnittker & John, *supra* note 18, at 122 tbl.3.

<sup>50</sup> For one example, see Marah A. Curtis, *The Effect of Incarceration on Urban Fathers' Health*, 5 AM. J. MENS HEALTH 341, 346 (2010).

<sup>51</sup> See generally Schnittker et al., *supra* note 9; Kristin Turney et al., *As Fathers and Felons: Explaining the Effects of Current and Recent Incarceration on Major Depression*, 53 J. HEALTH SOC. BEHAV. 465 (2012).

<sup>52</sup> See generally Massoglia, *Incarceration as Exposure*, *supra* note 18.

<sup>53</sup> See Schnittker & John, *supra* note 49, at 123.

<sup>54</sup> See Massoglia, *Incarceration, Health, and Racial Disparities*, *supra* note 18, at 284, 290–92.

<sup>55</sup> See generally Schnittker et al., *supra* note 18, at 138 (“A growing body of research suggests that, on balance, incarceration increases the risk for poor health.”).

## C. THREE HYPOTHESES

The literature on the causes of happiness and the direct and indirect effects of incarceration suggests three hypotheses: (1) the pains of imprisonment hypothesis, (2) the incomplete adaptation hypothesis, and (3) the selection hypothesis.

The first hypothesis, the pains of imprisonment hypothesis, suggests that incarceration has negative effects on happiness for those currently incarcerated, that the direct effects of imprisonment are the primary drivers of these effects, and that these effects do not persist upon release. A large body of research considers the effects of current incarceration on happiness, suggesting that individuals adapt to the prison environment.<sup>56</sup> This literature, however, relies primarily on the adaptation of prisoners serving long sentences, rather than the more typical scenario of relatively short sentences. Even the average prison stay, at 2.26 years,<sup>57</sup> is shorter than might be expected for individuals to fully adapt to the harsh prison environment. And this is to say nothing of the vast number of individuals incarcerated in jails who may have such short stays that they are unable to fully adapt. Additionally, this literature does not consider differential effects of current and former incarceration on happiness, despite reason to believe these effects are quite different. If the effects of current incarceration on happiness are driven by the direct effects described above, rather than the indirect ones, it is reasonable to expect that these effects do not persist over time, because most direct effects of imprisonment—confinement, regimentation, and isolation—end upon release. Thus, the pains of imprisonment hypothesis suggests that (1) current incarceration, but not recent incarceration, will diminish happiness, and (2) the indirect consequences of confinement will not explain this effect.

The second hypothesis, the incomplete adaptation hypothesis, suggests that incarceration has negative effects on the happiness of those currently and recently incarcerated and follows the extensive research suggesting that incarceration has negative direct and indirect effects on inmates. According to this perspective, it is possible that being incarcerated allows a person to resist adaptation, unlike responses to many other life events. Incarceration has both direct and indirect effects on individuals' lives. Many indirect effects persist long after release, and some—although not many—of these indirect effects appear only after release; it is plausible that these effects lead to significant reductions in happiness. In this case, the mark of a

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<sup>56</sup> See Wormith, *supra* note 32, at 431–32; *cf.* Suedfeld et al., *supra* note 33, at 330–33 (discussing adaptation of prisoners to life in solitary confinement).

<sup>57</sup> See Evelyn J. Patterson & Samuel H. Preston, *Estimating Mean Length of Stay in Prison: Methods and Applications*, 24 J. QUANTITATIVE CRIMINOLOGY 33, 35 (2008).

criminal record follows formerly incarcerated men everywhere. Thus, the incomplete adaptation hypothesis suggests that (1) both current incarceration and recent incarceration will diminish inmates' happiness, and (2) the indirect consequences of confinement will explain much of this effect. The available evidence in favor of the incomplete adaptation hypothesis is somewhat weaker than the evidence in favor of the pains of imprisonment hypothesis, especially in relation to the effects of prior incarceration on happiness. Since the bulk of the change in life circumstances resulting from incarceration occurs immediately upon prison entry or shortly thereafter,<sup>58</sup> it seems unlikely that the hedonic effects of prior incarceration would persist, as former prisoners rapidly adapt to their new lives.

Finally, the selection hypothesis suggests that the association between current incarceration, recent incarceration, and happiness is spurious and results from personal and social characteristics that lead to incarceration. Antisocial personality is common among inmates<sup>59</sup> and is related to neuroticism and antagonistic introversion, both of which are negatively related to well-being.<sup>60</sup> In a similar vein, prisoners are disproportionately disadvantaged in the labor market, have unstable relationships with kin and kith, and are often in poor health prior to incarceration. The selection hypothesis suggests that after accounting for these characteristics, neither current incarceration nor recent incarceration will affect their happiness.

The role of selection raises larger questions about the potential for a discontinuity between the short-term and long-term effects of incarceration. On one hand, even if the effects of current incarceration are diminished by an inmate's capacity to adapt, it is still possible that incarceration's long-run effects are not. On the other hand, if the prison environment overwhelms the effects of personality, former inmates might still be able to adapt to their environments after their release. The effects of prior incarceration depend on the breadth of incarceration's long-run consequences, and a rigorous empirical model necessitates controlling for personal, social, and environmental characteristics simultaneously. It is only by using stringent empirical tests and appropriate data that we can adjudicate between these three hypotheses.

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<sup>58</sup> See CLEMMER, *supra* note 12, at 102 (providing an example of changes encountered during prison entry); NURSE, *supra* note 17, at 72–102 (providing an example of those changes resulting when a former inmate returns home).

<sup>59</sup> See generally Seena Fazel & John Danesh, *Serious Mental Disorder in 23,000 Prisoners: A Systematic Review of 62 Surveys*, 359 LANCET 545 (2002).

<sup>60</sup> See generally Ronald Blackburn et al., *Big Five or Big Two? Superordinate Factors in the NEO Five Factor Inventory and the Antisocial Personality Questionnaire*, 37 PERSONALITY & INDIVIDUAL DIFFERENCES 957 (2004).

## II. DATA, MEASURES, AND ANALYTIC STRATEGY

In this Part, we discuss our empirical tools. We begin by describing our data source, the Fragile Families and Child Wellbeing Study. We then describe the measures. Finally, we discuss the analytic strategies used to test effects and whether any effects result from direct or indirect forces.

### A. THE FRAGILE FAMILIES AND CHILD WELLBEING STUDY

We use data from the Fragile Families and Child Wellbeing Study, a longitudinal study of nearly 5,000 new and mostly unmarried parents in 20 U.S. cities with populations of 200,000 or more. The study was designed to understand the conditions and capabilities of unmarried mothers and fathers but has also been used to study the consequences of incarceration for families<sup>61</sup> and individuals.<sup>62</sup> Between February 1998 and September 2000, initial interviews were conducted with mothers and fathers shortly after the birth of their children. Mothers were interviewed at the hospital, and fathers were interviewed in person or by telephone as soon as possible after the children's births. Mothers and fathers were then interviewed by telephone when their children were one, three, five, and nine years old, corresponding to the one-, three-, five-, and nine-year surveys.<sup>63</sup> Our sample includes the 3,145 fathers with a valid response for our dependent variable, happiness, at the five-year survey.<sup>64</sup> We focus on the five-year

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<sup>61</sup> See generally Amanda Geller et al., *Beyond Absenteeism: Father Incarceration and Child Development*, 49 DEMOGRAPHY 49 (2012) (suggesting that estimated effects of paternal incarceration are stronger than those of other forms of father absence, requiring specialized support for children of incarcerated fathers); Wildeman, Schnittker & Turney, *supra* note 17 (showing that recent parental incarceration increases a mother's risk of a major depressive episode and life dissatisfaction, taking into account a variety of other factors, beyond increasing economic insecurity and magnifying risk of divorce); Christopher Wildeman, *Paternal Incarceration and Children's Physically Aggressive Behaviors: Evidence from the Fragile Families and Child Wellbeing Study*, 89 SOC. FORCES 285 (2010) (suggesting that parental incarceration of fathers is associated with increased physical aggression for sons but not daughters).

<sup>62</sup> See generally Curtis, *supra* note 50 (finding previous incarceration and recidivism, depending on certain circumstances, can affect men's health positively or negatively); Geller & Curtis, *supra* note 40 (finding recently incarcerated urban men face greater housing insecurity including homelessness and precursors to homelessness, tied to diminished earnings and potential evictions).

<sup>63</sup> For further information about the study design, see generally Nancy E. Reichman et al., *Fragile Families: Sample and Design*, 23 CHILD. & YOUTH SERVICES REV. 303, 308–09 (2001).

<sup>64</sup> Of the 4,898 men in the sample, we drop the 1,739 (36%) men who did not participate in the five-year survey and an additional 14 (< 1%) men missing data on happiness at the five-year survey. Those in the analytic sample are, on average, more advantaged than those in the full sample. For example, men in the analytic sample are less likely to be currently incarcerated, are more likely to have education beyond high school, and are more likely to be married or cohabiting with their child's mother.

survey because men who were incarcerated at the nine-year survey were not interviewed.<sup>65</sup> The surveys prior to the five-year survey provide our control variables. We focus on men, as we can only rigorously test effects on men given their disproportionate representation in prisons and jails.

The Fragile Families data are well suited to our investigation. First, the data include a relatively large number of currently incarcerated men, recently but not currently incarcerated men, and ever-incarcerated men who were neither currently nor recently incarcerated. This allows us to consider the effects of both current incarceration and recent incarceration, and in some models, to compare currently incarcerated men to those at risk of incarceration but not currently incarcerated, which diminishes unobserved heterogeneity between individuals who do and do not experience incarceration.<sup>66</sup> In addition, unlike many other data sources that include prisoners, these data include questions about happiness across multiple waves. Researchers asked whether a man was happy at both the three- and five-year surveys and, for this reason, some models adjust for pre-incarceration happiness, greatly adding to the rigor of our analysis. These data are also ideal because they include a rich set of information about men's lives that has been neglected in previous research, making it possible to control for characteristics that might render the incarceration-happiness relationship spurious. Finally, the data also allow us to consider a range of mechanisms that may underlie the incarceration-happiness association. No other dataset includes this particular combination of features, making our tests uniquely strong.

## B. MEASURES

*Happiness.* The dependent variable, happiness, is measured by responses to a question asking how satisfied respondents are with their lives (1 = very dissatisfied, 2 = dissatisfied, 3 = somewhat satisfied, and 4 = very satisfied). The variable at the five-year survey is our dependent variable, but in some analyses, we also statistically adjust for happiness at the three-year survey, thereby evaluating change.

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<sup>65</sup> Few observations in the analytic sample were missing data on other variables because of item nonresponse, and we used multiple imputation procedures to preserve these observations. For a discussion of these procedures, see generally PAUL D. ALLISON, *MISSING DATA* 136 (2002); Patrick Royston, *Multiple Imputation of Missing Values: Further Update of Ice, with an Emphasis on Interval Censoring*, 7 *STATA J.* 445 (2007).

<sup>66</sup> For an explanation on how these comparisons were carried out, see generally Robert J. LaLonde, *Evaluating the Econometric Evaluations of Training Programs with Experimental Data*, 76 *AM. ECON. REV.* 604 (1986); Edward E. Leamer, *Let's Take the Con Out of Econometrics*, 73 *AM. ECON. REV.* 31 (1983).

*Current and Recent Incarceration.* The explanatory variables are current incarceration and recent incarceration. “Current incarceration” indicates the respondent was interviewed in prison or jail at the five-year survey. “Recent incarceration” indicates the respondent spent time in prison or jail between the three- and five-year surveys. Information about fathers’ recent incarcerations was garnered from both fathers and mothers (specifically, the women with whom fathers shared children). We consider fathers to have experienced recent incarceration if either the mother or father reported that the father had been incarcerated since the last interview.<sup>67</sup> Importantly, respondents with both current and recent incarceration are considered currently incarcerated but not recently incarcerated, and as such, current and recent incarceration are mutually exclusive.

Unfortunately, the Fragile Families data lack information on the length of time men were incarcerated. This means that although we can test the average effects of current incarceration, we cannot test how quickly men adapt to the pains of imprisonment. Although this is a limitation, research shows that prisoners’ unhappiness diminishes over time,<sup>68</sup> so our findings supplement that line of research by showing not only the average effect of current incarceration on happiness but also the average effect of incarceration on happiness in the past two years. In this way, the data still facilitate a strong empirical test of adaptation.

*Control Variables.* The analyses also statistically adjust for characteristics associated with both incarceration and happiness, all measured at or before the three-year survey (and thus prior to recent incarceration). To begin with, we control for a host of demographic characteristics including race, foreign-born status, age, education, frequency of attending religious services, number of children in the household, and familial history of major depression. We also control for four characteristics that likely partially account for why the inmate is incarcerated: impulsivity, measured by an abbreviated version of Dickman’s impulsivity scale;<sup>69</sup> domestic violence; substance abuse; and prior incarceration, indicating whether the father had been incarcerated at or before the three-year survey (including before the focal child’s birth).<sup>70</sup>

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<sup>67</sup> See Geller et al., *supra* note 61, at 53–54.

<sup>68</sup> See Wormith, *supra* note 32, at 428, 431–32. See generally Suedfeld et al., *supra* note 33.

<sup>69</sup> See generally Scott J. Dickman, *Functional and Dysfunctional Impulsivity: Personality and Cognitive Correlates*, 58 *J. PERSONALITY & SOC. PSYCHOL.* 95 (1990) (describing the method and use of the *impulsivity scales*).

<sup>70</sup> Although we would also like to consider the long-term consequences of incarceration for happiness, we include prior incarceration as a control variable rather than an explanatory

Finally, we control for economic well-being (employment, income-to-poverty ratio, and homelessness), romantic relationships (with the child's mother or with a new partner and relationship quality with the child's mother), parenting (shared responsibilities, perceptions of self as a father, and parenting stress), and physical and mental health (self-rated health and major depression).<sup>71</sup>

*Mechanisms.* We consider four sets of mechanisms, all measured as changes between the three- and five-year surveys: changes in economic well-being, changes in romantic relationships, changes in parenting, and changes in health. We consider these four mechanisms specifically because previous research establishes that incarceration disadvantages men in each of these domains and that they are also associated with significant changes in happiness.

### C. ANALYTIC STRATEGY

In considering the hedonic consequences of incarceration, our analysis proceeds in three stages. In the first stage, we present descriptive statistics for four samples: the full sample, currently incarcerated men, recently incarcerated but not currently incarcerated men, and not currently incarcerated nor recently incarcerated men. In so doing, we show how much less happy currently incarcerated and recently incarcerated men are compared to other men. We also show how much less happy these men were prior to incarceration as well as their greater likelihood of experiencing other obstacles to happiness, such as unemployment instability or relationship dissolution. During this stage, we also use a correlation matrix to show how strong the descriptive relationship between current and recent incarceration and happiness is relative to all other control variables.<sup>72</sup>

In the second stage, we use a series of statistical techniques to consider the causal effect of current incarceration and recent incarceration on happiness. Specifically, we start by using ordinary least squares (OLS) regression models and a host of control variables (including prior

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variable because the timing of prior incarceration is insufficiently precise for us to provide a strong causal test of the consequences of prior incarceration for happiness.

<sup>71</sup> Depression was measured by responses to the Composite International Diagnostic Interview Short Form (CIDI-SF) Version 1.0. For other examples of its use, see generally Ronald C. Kessler et al., *The World Health Organization Composite International Diagnostic Interview Short-Form (CIDI-SF)*, 7 INT'L J. METHODS PSYCHIATRIC RES. 171 (1998); Ronald C. Kessler & T. Bedirhan Üstün, *The World Mental Health (WMH) Survey Initiative Version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI)*, 13 INT'L J. METHODS PSYCHIATRIC RES. 93 (2004).

<sup>72</sup> Although the correlation matrix is not shown in the text of this Article, we nonetheless discuss the results from it in the text.

happiness). We then use two additional modeling strategies to account for additional selection (beyond that implied by controlling for prior happiness): fixed effects and propensity score models. The fixed effects model, which controls for stable unobserved differences and time-varying observed differences between men, shows how happiness changes as a result of changes in incarceration. The propensity score models approximate an experimental design by using observed variables to comprise a “treatment group” (e.g., currently incarcerated fathers) and a “control group” (e.g., not currently incarcerated fathers).<sup>73</sup> These models use different assumptions and approaches; together they provide a robust test of the effects of incarceration. After providing the first empirical evidence of the effects of current and recent incarceration on inmates’ happiness, we briefly discuss the uniformity of these effects. We do this by showing how individuals who respond positively to incarceration—those who depart from the average effects that we show in the first and second stages—differ from those who do not depart from the average.

In the third and final analytic stage, we consider to what degree the indirect effects of incarceration—changes in economic well-being, romantic relationships, parenting, and health—explain any consequences of incarceration for happiness. In so doing, we show to what degree the effects of incarceration on happiness are direct (transmitted through the pains of imprisonment) or indirect (transmitted through the broader consequences of incarceration). We start by explaining the indirect effects of incarceration on happiness and consider any remaining effect as the direct effects of incarceration. Given the extensive explanatory variables, we feel confident we are capturing nearly all of the indirect drivers of incarceration’s hedonic consequences, meaning what is left over can be treated, with a reasonable degree of certainty, as a direct effect.

### III. RESULTS

#### A. DESCRIPTIVE DIFFERENCES IN HAPPINESS

Table 1 begins our assessment of the effects of current and recent incarceration on happiness by presenting descriptive statistics for all the dependent, explanatory, and control variables. Considering first the full sample, most men were quite happy. This is consistent with prior research.

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<sup>73</sup> When generating the propensity score, we include all control variables included in the OLS regression models, as well as age squared, age cubed, impulsivity squared, and impulsivity cubed. We drop observations in which men are recently incarcerated when matching on current incarceration and drop observations in which men are currently incarcerated when matching on recent incarceration. Our findings were robust to different specifications.

The mean for happiness was 3.277, suggesting the average man was about one-quarter of the way from “somewhat satisfied” to “very satisfied.” There are, however, marked differences between groups. Currently incarcerated men were not miserable (in the sense that their average was not close to 1 for “very dissatisfied”), but they were significantly less happy than men not currently nor recently incarcerated. With a value of 2.515, the average currently incarcerated man was midway between “somewhat dissatisfied” and “somewhat satisfied.” In contrast, the average man not currently nor recently incarcerated was about one-third of the way between “somewhat satisfied” and “very satisfied” (with a value of 3.357). Recently incarcerated men were also significantly less happy than men not currently nor recently incarcerated with a value of 3.127, but they were also happier than currently incarcerated men. Furthermore, the happiness of recently incarcerated men was only .230 (3.357–3.127) lower than those without current or recent incarcerations and .612 (3.127–2.515) higher than the currently incarcerated.

The strength of the relationship between current incarceration and happiness is further demonstrated by considering the correlation matrix.<sup>74</sup> In the correlation matrix, the correlation between current incarceration and happiness is very strong ( $r = -.26$ ); the relationship between recent incarceration and happiness is much weaker ( $r = -.07$ ). Of all variables included in our analysis, moreover, the only variable more strongly intertwined with current happiness than current incarceration is prior happiness ( $r = .38$ ), which is the strongest correlate of current happiness. Thus, at least descriptively, the results are consistent with the pains of imprisonment hypothesis, which suggests large declines in happiness during incarceration and rapid rebounds upon release.

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<sup>74</sup> Although not depicted, the correlation matrix is on file and available upon request from the authors and the *Journal of Criminal Law and Criminology*.

**Table 1**  
*Means and Standard Deviations of Variables Used in Analyses*

	Full sample		Currently incarcerated		Recently incarcerated		Neither currently nor recently incarcerated	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Happiness	3.277	(0.774)	2.515	(0.993) ***	3.127	(0.819) ***	3.357	(0.710)
Current incarceration	6.5%		100.0%		0.0%		0.0%	
Recent incarceration	11.1%		0.0%		100.0%		0.0%	
<i>Control variables</i>								
<i>Race</i>								
White	20.6%		3.5%	***	11.1%	***	23.2%	
Black	48.9%		73.5%	***	63.6%	***	45.0%	
Hispanic	26.3%		18.6%	**	22.4%	^	27.4%	
Other race	4.2%		4.4%		2.9%		4.4%	
Age	31.043	(7.293)	28.063	(6.431) ***	28.091	(6.484) ***	31.674	(7.304)
Foreign-born	15.6%		2.8%	***	7.3%	***	17.8%	
<i>Education</i>								
Less than high school	28.8%		47.1%	***	43.6%	***	25.3%	
High school diploma or GED	31.0%		40.5%	**	33.5%		30.0%	
Post-secondary education	40.2%		12.4%	***	22.9%	***	44.7%	
<i>Attendance at religious services</i>								
Weekly	32.7%		43.9%	**	33.3%		31.8%	
Monthly	17.8%		11.3%	**	14.9%	*	18.7%	
Yearly	35.3%		24.7%	**	33.7%		36.3%	
Never	14.2%		20.1%	**	18.1%	***	13.2%	
Number of children in household	1.549	(1.397)	1.329	(1.331) *	1.249	(1.377) ***	1.606	(1.398)
Parent experienced depression	31.7%		44.8%	**	36.7%	**	30.0%	
Impulsivity	2.082	(0.946)	2.344	(1.036) ***	2.187	(0.994) ^	2.048	(0.928)
Domestic violence	11.6%		17.4%	***	28.0%	***	8.9%	
Drug or alcohol abuse	16.5%		33.3%	***	37.3%	***	12.4%	
Prior incarceration	40.2%		93.0%	***	77.6%	***	31.0%	
Employed	78.3%		39.5%	***	63.5%	***	83.3%	
Income-to-poverty ratio	2.807	(3.294)	2.386	(3.330) **	2.047	(2.959) ***	2.942	(3.317)
Homeless or doubled up	4.8%		7.4%	*	10.1%	***	3.9%	
<i>Relationship status with child's mother</i>								
Married	37.0%		6.3%	***	12.8%	***	42.6%	
Cohabiting	21.7%		12.9%	**	18.9%	^	22.8%	
Nonresidential relationship	6.1%		12.7%	***	8.9%	**	5.2%	
Not in a relationship	35.2%		68.1%	***	59.4%	***	29.4%	
In a relationship with another partner	15.2%		22.9%	***	28.5%	***	12.8%	

**Table 1**  
*Continued*

	Full sample		Currently incarcerated		Recently incarcerated		Neither currently nor recently incarcerated	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Relationship quality with child's mother	3.557	(1.301)	3.009	(1.390) ***	3.115	(1.333) ***	3.659	(1.266)
Shared responsibility in parenting	2.841	(1.080)	1.997	(1.173) ***	2.284	(1.115) ***	2.983	(1.011)
Perception of self as a father	3.140	(0.852)	2.675	(0.986) ***	2.856	(0.889) ***	3.215	(0.815)
Parenting stress	2.086	(0.675)	2.257	(0.729) ***	2.239	(0.689) ***	2.052	(0.663)
Depression	15.4%		33.0%	***	21.3%	***	13.2%	
Self-rated health	3.971	(0.969)	4.034	(1.047)	3.943	(1.005)	3.969	(0.958)
Happiness at three-year survey	3.265	(0.791)	2.718	(1.006) ***	3.007	(0.880) ***	3.343	(0.732)
<i>Potential mechanisms</i>								
Change in employment	0.008	(0.453)	-0.145	(0.652) ***	0.049	(0.563)	0.015	(0.414)
Change in income-to-poverty ratio	0.057	(2.768)	-0.517	(3.058)	0.020	(2.152)	0.107	(2.813)
Change in homelessness	-0.010	(0.272)	-0.029	(0.327)	-0.005	(0.404)	-0.010	(0.244)
New separation from child's mother	0.108	(0.310)	0.181	(0.385) ***	0.211	(0.408) ***	0.088	(0.284)
Change in relationship quality with child's mother	-0.070	(1.219)	-0.272	(1.432) ***	-0.260	(1.331) **	-0.029	(1.180)
Change in shared responsibility in parenting	-0.128	(0.871)	-0.395	(1.094) ***	-0.346	(1.074) ***	-0.077	(0.810)
Change in perception of self as father	-0.050	(0.806)	-0.082	(0.971)	-0.065	(0.927)	-0.045	(0.774)
Change in parenting stress	-0.034	(0.645)	-0.072	(0.699)	-0.019	(0.743)	-0.032	(0.626)
Change in depression	-0.038	(0.408)	-0.075	(0.569) *	-0.003	(0.512)	-0.040	(0.375)
Change in self-rated health	-0.132	(1.017)	-0.039	(1.171)	-0.238	(1.147) **	-0.125	(0.984)
N	3,145		204		349		2,592	

Source: Fragile Families and Child Wellbeing Study

Notes: Asterisks are for two-sided significance tests comparing currently incarcerated fathers and recently incarcerated fathers to neither currently nor recently incarcerated fathers.

\* Current incarceration includes fathers in prison or jail at the five-year survey. Recent incarceration includes fathers in prison or jail between the three- and five-year surveys.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Despite the large differences in happiness shown in Table 1, the selection perspective suggests these differences are driven not by incarceration but a host of other factors (such as antisocial personality, criminality, or low socioeconomic status) that led these men to get locked up. The relevance of this perspective is suggested by preexisting differences in happiness as well as other characteristics that may render men vulnerable to getting incarcerated. Differences in happiness prior to

incarceration were not as large as differences after or during incarceration, but they were still large. The average level of pre-incarceration happiness at the three-year survey for currently incarcerated men was 2.718, which is far lower than 3.007 for recently incarcerated men and 3.343 for men not about to experience incarceration.

It is important to combine these large, significant differences in happiness with the many other ways in which incarcerated men are disadvantaged, as we do in the subsequent rows in Table 1. For example, currently and recently incarcerated men, compared to their counterparts, have lower educational attainment, higher levels of unemployment, and higher levels of depression. They also have higher levels of impulsivity. This is especially relevant for this analysis because impulsivity is associated with elevated risks of imprisonment<sup>75</sup> and lower happiness.<sup>76</sup> Consequently, though currently and recently incarcerated men are less happy than other men, these descriptive statistics make it impossible to know if these differences are caused by experiencing incarceration, possessing preexisting differences in happiness, or having additional characteristics that may cause unhappiness.

#### B. DOES INCARCERATION CAUSE UNHAPPINESS?

To assess whether the negative associations between incarceration and happiness result from causal effects of incarceration, we present a series of empirical tests in Table 2. Model 1 presents the unadjusted association between incarceration and happiness, suggesting that both currently incarcerated and recently incarcerated men are significantly less happy than other men. Furthermore, the differences are substantial, especially in the case of current incarceration. As noted earlier, the happiness scale ranges from 1 to 4 (1 = very dissatisfied, 2 = dissatisfied, 3 = satisfied, and 4 = very satisfied). Interpreted with respect to this range, the differences between currently incarcerated men and other men are especially pronounced, as they represent nearly an entire move from one category to the next (and more than one standard deviation). Differences between recently incarcerated men and other men are less pronounced but still substantial.

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<sup>75</sup> See generally MICHAEL R. GOTTFREDSON & TRAVIS HIRSCHI, *A GENERAL THEORY OF CRIME* (1990) (arguing that low self-control—also known as high impulsivity—is the primary cause of crime).

<sup>76</sup> See Diener et al., *supra* note 22, at 279–82 (discussing a whole host of personality factors including gauges of impulsivity—although using slightly different names for those traits—that influence happiness).

In Models 2 through 5, we begin a rigorous investigation of these associations by adjusting for the following: background characteristics such as race, age, immigrant status, education, religious service attendance, number of children, and familial history of depression (Model 2); dimensions of antisocial behavior and personality such as impulsivity, domestic violence, substance abuse, and prior incarceration (in Model 3); a host of other relevant covariates related to the father's economic well-being, romantic relationships, parenting, and health (Model 4); and prior happiness (Model 5). All control variables were measured before current incarceration and recent incarceration, preserving appropriate time-ordering for evaluating causal effects.

For current incarceration, the picture is clear: Even after adjusting for pre-incarceration characteristics, current incarceration is still associated with a substantial, statistically significant decrease in happiness. To better gauge the magnitude of this relationship, consider three findings. First, even in the most rigorous model (Model 5), all the control variables combined explain only 39%  $((1-0.522)/.828)$  of the association between current incarceration and happiness. Second, the current incarceration-happiness association (-.522) is still more than 130% larger than the basic association between recent incarceration and happiness (-.221), even after controlling for the full range of observed pre-incarceration characteristics. Finally, moving from maximally satisfied to maximally dissatisfied is only a move of three points, meaning that current incarceration on its own would shift someone who was very satisfied with his life (4) around 20% of the way to being very dissatisfied with his life (1). By any metric, these are large effects, consistent with the strong descriptive relationships shown in Tables 1.

The findings for recent incarceration are different. After adjusting for basic demographic characteristics in Model 2, the association between recent incarceration and happiness diminishes by 41% (from -.221 to -.131) although it maintains statistical significance. Yet after adjusting for pre-incarceration antisocial behavior and personality (Model 3), the relationship is rendered small and statistically insignificant (-.067). As the number of factors we adjust for increases in Models 4 (-.041) and 5 (-.022), the association becomes even smaller, although the factors that most diminish the relationship were those introduced in Model 3, suggesting anti-social behavior and personality play a crucial role. Thus, though results from the first five models show that current incarceration has a large, negative, and significant effect on happiness, the same is not true for recent incarceration. This is consistent with our pains of imprisonment hypothesis, which suggests current but not recent incarceration diminishes happiness.

**Table 2**  
*Estimating Happiness as a Function of Current and Recent Incarceration*

	OLS regression models									
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Current incarceration	-0.828 *** (0.064)	-0.699 *** (0.065)	-0.634 *** (0.068)	-0.575 *** (0.067)	-0.522 *** (0.072)	-0.570 *** (0.081)	-0.467 *** (0.087)	-0.580 *** (0.092)	-0.609 *** (0.087)	-0.645 *** (0.085)
Recent incarceration	-0.221 *** (0.042)	-0.131 ** (0.043)	-0.067 (0.046)	0.041 (0.043)	0.022 (0.042)	-0.002 (-0.051)	0.054 (0.044)	0.088 (0.056)	0.083 (0.052)	0.048 (0.051)
Constant	3.359	3.545	3.673	2.844	2.243	2.557	2.732	---	---	---
Adjusted R-squared	0.090	0.147	0.155	0.215	0.248	0.235	0.262	---	---	---
N	3,145	3,145	3,145	3,145	3,145	1,258	3,145			

Source: Fragile Families and Child Wellbeing Study

Notes: Model 2 adjusts for race, immigrant status, age, education, frequency of attendance at religious services, number of children, and parent experienced depression. Model 3 includes all controls from Model 2 and also adjusts for impulsivity, domestic violence, substance abuse, and prior incarceration. Model 4 includes all controls from Model 3 and also adjusts for employment, income-to-poverty ratio, homelessness or doubled-up status, relationship status with child's mother, relationship with new partner, relationship quality with child's mother, shared responsibility in parenting, perceptions of self as a father, parenting stress, depression, and self-rated health. Model 5 includes all controls from Model 4 and adjusts for a lagged indicator of happiness. Model 6 includes all controls from Model 5 and restricts the sample to previously incarcerated fathers. Model 7 includes all time-varying controls from Model 5. Models 8, 9, and 10, respectively, provide results from propensity score models using nearest neighbor, radius, and kernel matching strategies. All models include city fixed effects. The N for models 8 through 10 is as follows: for current incarceration, nearest neighbor has 169 treated, 2737 untreated; radius has 169 treated and 2737 untreated; and kernel has 181 treated and 2737 untreated. For recent incarceration, nearest neighbor has 317 treated and 2597 untreated; radius has 316 treated and 2597 untreated; and kernel has 321 treated and 2597 untreated.

\*\*  $p < .01$ . \*\*\*  $p < .001$ .

Models 6 and 7 further diminish unobserved differences by limiting the sample to men who experienced incarceration at or before the three-year survey (Model 6) and by using fixed effects. The model using the limited sample also adjusts for time-varying covariates, which will not be captured with the fixed effects (Model 7). Despite the rigor of these models, the results are remarkably robust. Consistent with the first five models, current incarceration is associated with substantial and statistically significant declines in happiness (-.570 in Model 6 and -.467 in Model 7). Furthermore, the magnitude of this association changes little from that in Model 5, as the effects increase slightly when we limit the sample to ever-incarcerated men (from -.522 to -.570) and decrease, albeit only slightly, when we use individual fixed effects (-.522 to -.467). Also consistent with Models 1 through 5, recent incarceration continues to be minimally associated with happiness, as the coefficient is very near 0 in Model 6 (-.002) and small and even positive in Model 7 (.054).

Models 8 through 10 provide a final test of the robustness by using three varieties of propensity score models—nearest neighbor, radius, and kernel matching. For both current and recent incarceration, results are consistent with those from the first seven models, as current incarceration is associated with statistically significant and large declines in happiness of .580 (Model 8), .609 (Model 9), and .645 (Model 10), and recent incarceration is associated with small and statistically insignificant shifts in happiness of .088 (Model 8), .083 (Model 9), and .048 (Model 10). Taken together, Table 2 suggests current incarceration's association with happiness is likely causal, negative, and large. It also suggests, however, that there are no statistically significant lingering effects of recent incarceration on happiness.

Yet, clearly not all incarcerated men suffered resulting dramatic declines in happiness, and it may be informative to determine what distinguishes those whose happiness withers under the conditions of confinement from those whose happiness increases during the incarceration period. Appendix A presents key descriptive differences of those whose happiness declines during incarceration from those whose happiness increases. The results from this analysis are instructive, as those whose happiness increases differ in only two ways from those who happiness declines. First, those whose happiness decreases were far happier before than those whose happiness increases, suggesting that the latter were not necessarily resilient but that they were so unhappy that their happiness could hardly decline further. Indeed, these men were only three-quarters of the way from "very dissatisfied" with their lives to "somewhat dissatisfied" with them (1.764), suggesting unusually strong unhappiness prior to

incarceration. Second, the men whose happiness increases were very likely to experience clinical levels of depression; 52.7% of men whose happiness increases demonstrated symptoms consistent with major depressive disorder prior to incarceration. Men whose happiness decreases during incarceration (23.0%) were also more likely to be depressed than the average man (15.4%). Nonetheless, the difference in pre-incarceration depression between men whose happiness decreases and those whose happiness increases are marked. Taken together, these differences suggest that few inmates are resilient to the pains of imprisonment. And indeed, of the few who are, their increasing happiness during incarceration is more likely a product of their previous misery than their resilience.

### C. WHY DOES INCARCERATION CAUSE UNHAPPINESS?

Until we test the indirect mechanisms through which current incarceration diminishes happiness, it is difficult to know whether the evidence is more consistent with the pains of imprisonment hypothesis or the incomplete adaptation hypothesis. On one hand, if the pains of imprisonment drive the relationship between current incarceration and happiness, the indirect mechanisms (changes in the inmates' economic well-being, relationships, parenting, and health) should explain little of the relationship. On the other hand, if incomplete adaptation drives the relationship, the indirect mechanisms should explain much of the relationship. We test these four mechanisms in Table 3.

**Table 3**  
*Estimating Happiness as a Function of Current and  
 Recent Incarceration with Mechanisms*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	<i>Baseline</i>	<i>MI + economic well-being</i>	<i>MI + relationship with mother</i>	<i>MI + parenting</i>	<i>MI + health</i>	<i>MI + all mechanisms</i>
Current incarceration	-0.522 *** (0.072)	-0.460 *** (0.066)	-0.483 *** (0.075)	-0.484 *** (0.067)	-0.519 *** (0.067)	-0.444 *** (0.061)
Recent incarceration	-0.022 (0.042)	-0.004 (0.043)	0.015 (0.044)	0.011 (0.044)	0.015 (0.043)	0.059 (0.045)
Constant	2.243	2.144	2.050	2.210	1.974	1.857
Adjusted R-squared	0.248	0.258	0.275	0.273	0.312	0.342
N	3,145	3,145	3,145	3,145	3,145	3,145

Source: Fragile Families and Child Wellbeing Study

Notes: All models adjust for race, immigrant status, age, education, frequency of attendance at religious services, number of children, parent experienced depression, impulsivity, domestic violence, substance abuse, prior incarceration, employment, income-to-poverty ratio, homelessness or doubled-up status, relationship status with child's mother, relationship with new partner, relationship quality with child's mother, shared responsibility in parenting, perceptions of self as a father, parenting stress, depression, self-rated health, and a lagged indicator of happiness. Model 2 adjusts for change in employment, change in income-to-poverty ratio, and change in homelessness. Model 3 adjusts for new separation from the child's mother and change in relationship quality with the child's mother. Model 4 adjusts for change in shared responsibility in parenting, change in perceptions of self as a father, and change in parenting stress. Model 5 adjusts for change in depression and change in self-rated health. Model 6 includes all potential mechanisms. All models include city fixed effects.

\*\*\*  $p < .001$ .

In Model 1 of Table 3, we present the baseline model, which corresponds with Model 5 of Table 2 and includes no mechanisms. We chose this model because it does not include any sample limitations (such as Model 6 of Table 2), it does not restrict the sample only to within-individual changes (such as Model 7 of Table 2), and it does not make it impossible to test for mechanisms (such as Models 8 through 10 of Table 2). The starting point in this model is a coefficient of -.522.

Model 2 considers changes in economic well-being and explains only 12% of the relationship between current incarceration and happiness (as the coefficient changes from -.522 to -.460). Adding changes in romantic relationships (Model 3; -.522 to -.483), changes in parenting (Model 4; -.522 to -.484), and changes in physical and mental health (Model 5; -.522 to -.519) does nothing to further reduce the relationship. In fact, all three mechanisms slightly increase the association between current incarceration and happiness. Considering all four sets of mechanisms simultaneously (Model 6; -.522 to -.444) only explains about 15% of the

relationship between current incarceration and happiness. Thus, the results from Table 3 imply that the proposed indirect consequences of incarceration have only a small effect on happiness. The direct effects of incarceration are much larger than the indirect effects, providing further support for the pains of imprisonment hypothesis.

#### CONCLUSION

In this Article, we provide the first empirical test of the effects of current incarceration and recent incarceration on happiness. We first presented three hypotheses, drawing from research on the causes of happiness and the direct and indirect consequences of incarceration. We referred to these as (1) the pains of imprisonment hypothesis, (2) the incomplete adaptation hypothesis, and (3) the selection hypothesis.

Our analyses show three findings: that current, but not recent, incarceration has negative effects on happiness; that the only men seemingly resilient to the pains of imprisonment are those who were either clinically depressed or very unhappy before incarceration; and that the indirect consequences of incarceration do little to explain these effects. In this way, the findings provide support for the pains of imprisonment hypothesis rather than the incomplete adaptation hypothesis. Despite all the insults indirectly resulting from incarceration, the happiness of former prisoners bounces back. Although ruling out selection for incarceration entirely is difficult, we feel confident in our evidence given the breadth of control variables in our models and the fixed effects models that account for stable characteristics.

By providing these strong empirical tests, this Article makes an important contribution to how we think about the subjective severity of incarceration, which has implications for sentencing. In their Article, Bronsteen et al. carefully outlined how the adaptation literature challenges some conventional assumptions of punishment.<sup>77</sup> Arguing that adaptation is in fact relevant to incarceration and that the subjective consequences of incarceration are important, they suggested that current incarceration will have less punitive consequences for happiness than ordinarily assumed.<sup>78</sup> They further argued that it will be difficult to tailor prison sentences to crimes using sentence length because the long-term hedonic costs of incarceration will exceed those of current incarceration.<sup>79</sup> If empirically

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<sup>77</sup> See generally Bronsteen et al., *supra* note 1 (arguing that to know the range of the hedonic consequences of imprisonment, we must know the immediate and lasting consequences of imprisonment for happiness).

<sup>78</sup> *Id.* at 1038.

<sup>79</sup> *Id.* at 1038–39.

verified, these insights would shift how we think about sentencing. Not surprisingly, their article has attracted a good deal of attention and generated considerable controversy.

The results of our empirical study, however, suggest that adaptation does not present an unusual complication, and for this reason, that it may be possible to calibrate sentences effectively—at least in the sense that we know that the happiness of released prisoners rebounds, suggesting the hedonic costs of incarceration are somewhat more limited than previously thought. We find that current incarceration has large hedonic consequences on happiness. For this reason, judges will not systematically misestimate the pain caused by imprisonment as they would if adaptation were in effect.

Furthermore, our results suggest the punitive nature of incarceration on happiness might be more bounded than expected. In particular, our results suggest the effects of incarceration on happiness—if not other outcomes documented in the literature—dissipate upon release, which is the desirable result if punishment is to be conceptualized strictly in terms of the sentence itself and if there is fear of hedonically excessive and unrestricted punishment, lingering even years after release. Of course, our results do not address the deterrent value of incarceration. In this regard, potential offenders might still fail to anticipate the hedonic consequences of incarceration, thereby minimizing the capacity of the threat of incarceration to prevent crime. This, too, is an important feature of the adaptation literature and one worth considering further. Nevertheless, our results suggest it is possible to craft sentences that induce negative hedonic consequences in a delimited fashion.

This is not to say that our study is without limitations. First, our data did not allow us to consider how inmates' happiness changes over the duration of their sentences. This is unfortunate, because we would have ideally considered how the hedonic costs of incarceration dissipate over the days, weeks, months, or years. Second, our data did not include measures of experiences within prison. Although we are confident the direct effects of being incarcerated are more important than the indirect effects, the kind of prison experiences that are detrimental to well-being remains to be seen.

**Appendix A***Descriptive Statistics for Selected Variables for Those Whose Happiness Increases and Decreases While Incarcerated*

	Increase in happiness		Decrease in happiness	
	Mean or %	S.D.	Mean or %	S.D.
Prior happiness	1.764	(0.769)	3.351	(0.711) ***
Race				
White	0.0%		2.6%	
Black	63.6%		81.1%	*
Hispanic	29.1%		14.9%	
Other race	7.3%		1.4%	
Age	27.964	(6.086)	27.649	(6.240)
Foreign-born	3.6%		2.7%	
Education				
Less than high school	47.3%		48.7%	
High school diploma or GED	38.2%		35.1%	
Post-secondary education	14.5%		16.2%	
Parent experienced depression	38.2%		37.8%	
Impulsivity	2.200	(1.026)	2.297	(1.030)
Domestic violence	21.8%		17.6%	
Drug or alcohol abuse	32.7%		32.4%	
Prior incarceration	94.5%		93.2%	
Relationship quality with child's mother	2.891	(1.315)	3.216	(1.296)
Shared responsibility in parenting	1.881	(1.183)	2.083	(1.210)
Parenting stress	2.271	(0.724)	2.232	(0.639)
Depression at three-year survey	52.7%		23.0%	***
Self-rated health	3.947	(1.034)	4.083	(1.050)
N	55		74	

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

