

Romantic Dissolution and Offending During Emerging Adulthood

by

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## ABSTRACT

Criminologists have directed significant theoretical and empirical attention toward the institution of marriage over the past two decades. Importantly, the momentum guiding this line of research has increased despite the fact that people are getting married far less often and much later in the life course than in any point in American history. The aim of this dissertation is to address this disconnect by focusing attention to nonmarital romantic relationships and their instability during emerging adulthood. To do so, it uses data from the Pathways to Desistance Study, a longitudinal study of 1,354 at-risk males and females who were adjudicated from the juvenile and adult systems in Phoenix and Philadelphia between 2000 and 2003. The project focuses attention to the following issues: (1) the effect of romantic dissolution on aggressive and income-based offenses; (2) the extent to which strain/negative emotionality and peer influence/exposure account for the effect of romantic dissolution on crime; and (3) the extent to which certain relationship and individual circumstances moderate the effect of romantic dissolution. The models reveal a few key findings. First, romantic dissolution is strongly related to an increase in both aggressive and income-based crime, but is more strongly related to income-based crime. Second, the effect of romantic dissolution is reduced when measures of strain/negative emotionality and peer influence/exposure measures are added to models, but the peer influence/exposure measures account for the strongest reduction. Finally, romantic dissolution does not serve as a positive life event among these at-risk youth, but its effect is exacerbated under a number of contexts (e.g. when an individual is unemployed). This study closes with a summary of these findings as well as its key limitations, and offers insight into potential policy implications and avenues of future research.

## DEDICATION

The energy that produced this document is dedicated to my mom and the memory of my pops. It is your guidance, love, and support that made this a reality. I love you with all of my heart and admire you more than you will ever know.

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## CHAPTER 1

### INTRODUCTION

#### INTRODUCTION

A profusion of criminological research over the past twenty years has revealed that intimate relationships have an impressive effect on criminal behavior over the life course. Much work in this area has concentrated on the influence of *romantic involvement* and the *quality* of romantic attachments (e.g. Laub, Sampson, & Nagin, 1998; McCarthy & Casey, 2008; Sampson & Laub, 1993). In general, this literature suggests that relationships, especially those that are healthy, exhibit a significant influence on offending, gradually steering individuals away from crime. More recent work in this area has furthered the romance-crime literature by examining whether relationship effects are dependent upon the characteristics of romantic partners (e.g. Capaldi et al., 2008; Haynie et al., 2005; Simons et al., 2002; Woodward et al., 2002). This literature generally points to a starker reality: antisocial partnerships either increase criminal behavior or allow it to persist unabated. Thus, some relationships serve as a protective factor by modifying criminal trajectories for the better and others serve as a risk factor by increasing and/or prolonging criminal involvement. The main point is that these divergent conclusions tell us that the consequences of romantic involvement for crime are complex.

Despite this established complexity, criminologists continue to neglect a defining feature of romantic relationships. That is, they have given virtually no attention to the simple fact that relationships end with remarkable regularity and, often times, much “too quickly” (Cherlin, 2009, p.194). Obviously, romantic dissolution is no novel

phenomenon, but relationships have never been as uncertain and unpredictable as they are today (Fisher, 2006). To be sure, “the processes through which people form intimate relationships have become more complex, and the outcomes of these relationships less certain, than in previous decades” (Amato & Booth, 1997, p.85). The decline of marriage is a symptom of various structural changes in recent decades, but has aided in the developmental of a new stage of the life course, “emerging adulthood,” in which romantic relationships are more fluid and unstable than in any point in American history (Arnett, 2000; Crouter & Booth, 2006).

The instability of relationships in emerging adulthood, along with developmental scholars’ recent prognosis that emerging adulthood has “prolonged the crime-promoting conditions of adolescence” and “increased the period of exposure to ‘snares’” (Moffitt et al., 2002, p.200), is where this dissertation focuses its attention. This is an important area of theoretical and empirical inquiry for a variety of reasons. First, it addresses an impressive gap in the relationships-crime literature by concentrating on relationship dissolution, thereby providing a more systematic understanding of the ramifications of relationships for crime. Second, it shifts criminology’s focus to nonmarital romantic involvement, which is a particularly timely phenomenon due to the unrelenting delay and decline of marriage. More importantly, such a focus better captures the type of relationships that at-risk youth are likely to be part of during emerging adulthood (see Huebner, 2005, 2007; King & South, 2010; Simons & Barr, forthcoming). Ultimately, understanding of intimate partnerships within the social and historical contexts that they occur is imperative for criminological research that aspires to affect policy. The goal of this dissertation is to bring the literature closer to that understanding.

This chapter continues in three sections before moving to this dissertation's theoretical foundation and reviewing the empirical findings of criminological research on romantic relationships. The first section provides a general overview of life course theory, with special attention paid to its key principles. Following that overview, the second section examines the changes that the institution of marriage has endured over the past 50 years in order to explicate why nonmarital relationships are of great import to contemporary criminological theorizing. The third and final section discusses the emergence of "emerging adulthood" and justifies its utility in research on crime over the life course. It also highlights the nature of the romantic relationships that have replaced marriage as the primary form of romantic involvement during emerging adulthood. In the end, the present chapter will expose the increasing irrelevance of marriage in research on crime by elucidating the relevance of emerging adulthood and the relationships that occur during this new life stage.

## LIFE COURSE THEORY

The 'unfolding of human lives' has received a wealth of attention over the last few decades and life course theory has spearheaded this movement (see Elder, 1985, 1994, 1998). According to Elder (1994, p.5), the life course "can be viewed as a multilevel phenomenon, ranging from structured pathways through social institutions and organizations to the social trajectories of individuals and their developmental pathways." This approach has been used in a wide-range of disciplines, including medicine, developmental psychology, and sociology, and is especially meaningful to scholars interested in understanding antisocial behavior.

There are four principles central to life course theory (see Elder, 1998, p.3-4). The first principle is that of *historical time and place*. That is, understanding human development necessarily requires that attention be paid to the historical context in which human lives are embedded. An example of this is seen in Beijers, Bijleveld, and van Poppel's (2012) work that found marriage to have a greater impact on men who married between 1930 and 1970 than those who married between 1971 and 2006. The second principle is that of *timing in lives*. In essence, this principle draws attention to the fact that the effect of life transitions depends on when they occur. For instance, research on marriage and offending has found that early marriages are more consequential than those that happen later in life (e.g. Theobald & Farrington, 2011). The third principle of life course theory is that of *linked lives*. This principle focuses on the fact that human lives are lived interdependently (Elder, 1998) and that the network of relationships that humans are part of is central to their development. This is seen in developmental research that shows children carry with them throughout adolescent and into adulthood a set of interpersonal skills that they learned from their parents (Amato & Booth, 1997). The fourth and final principle is that of *human agency*. This principle highlights the importance of individual choice within the changing opportunity structure throughout the life course (Elder, 1994, 1998). For example, Blossfeld and Timm (2003) determined that educational systems have become the dominant marriage market in most industrialized societies, which works to sustain both the social and economic inequities of groups who withdraw from education. Together, these principles contextualize human development in a way that few other perspectives are able to.

## THE DELAY (AND DECLINE) OF MARRIAGE

Over the past twenty years, life-course theorists have increased their attention to the relationship between marriage and the decline of criminal behavior throughout adulthood (Laub, Nagin, & Sampson, 1998; Sampson, Laub, & Wimer, 2006; Theobald & Farrington, 2010). Studies in this area, with few exceptions, have consistently revealed that the marriage-desistance relationship is quite robust, and arguably the most influential of all social role transitions that offenders can experience. To be sure, there remains little reason for criminologists to hesitate in saying that *marriage matters*, despite the concerns that surround the question of *why* it matters (see Gottfredson & Hirschi, 1990; Hirschi & Gottfredson, 1995; Laub & Sampson, 2003; Wright, Caspi, Moffitt, & Silva, 2001).

The practical significance of criminological research on “the marriage effect” has rested, in part, on the fact that most American adults, and scores of offenders, will enter a partnership that eventually culminates in “ties that bind” (Waite, 2000). Indeed, from a historical perspective, “marriage has been the social arrangement that, more than any other, provided structure and meaning to people’s lives” (Amato et al., 2009, p.1). Studying an institution that a vast majority of Americans have traditionally entered into, and that gives their lives important structure and meaning, has always had grand implications for criminologists due to its potential to affect policy on a large scale.

The nature and meaning of marriage in the United States has changed extensively over the past few decades, however, becoming a more voluntary and less permanent union than in any period in American history (Cherlin, 2009). According to Census estimates, 72% of adults over the age of 18 were married in 1960; as of 2010, barely half (51%) of all adults were (Cohn et al., 2011). Declining rates of marriage have occurred

across the age-spectrum since the mid-20<sup>th</sup> century as well (Raley, 2000), but are most remarkable among young adults between the ages of 18 and 29. Among this population, only 20% were married in 2010, which is a proportion drastically lower than the 59% who were married in 1960 (Cohn et al., 2011).

This decline in the percentage of young adults entering marriage is partly attributable to their delaying entrance into marriage (Cherlin, 2009). The change in the median age of marriage has increased significantly in recent decades from 22.8 years in 1960 to 28.7 years in 2010 among men (Cohn et al., 2011). Women are postponing marriage at a rate that closely parallels that of their male counterparts, with their median age of first marriage rising 6.2 years over the past half-century from 20.3 to 26.5. Together these numbers inform us that the entrance into marriage is an event that now occurs much later in the life course.

The above statistics that highlight the decrease in the number of people married as of 2010 do not necessarily suggest that Americans are shying away from marriage altogether. Importantly, the figures are largely influenced by a divorce rate that continues to escalate (see Amato et al., 2007; Cohn et al., 2010). To better capture the historical trend in the proportion of individuals refraining from marriage completely, attention must be directed specifically to adults who reported *never being married*. According to Cohn and colleagues (2011), a mere 15% of adults aged over 18 had completely abstained from marriage as of 1960. By 2010, the proportion of abstainers had almost doubled, increasing to 28%.

Currently, then, close to 3 out of every 10 Americans have steered clear of the aisle. Marriage is still the preferred option among most young adults (Cherlin, 2009;

Smock, 2004), but the timing of the transition has changed, and there is some question as to whether it will remain a desired goal in the future (Byrne & Carr, 2005). The demographic trends of the past 50 years are so salient that scholars have forecasted the following: “it is likely that an unprecedented proportion of the current generation will never marry” (Fitch & Ruggles, 2000, p.72)

From a general standpoint, these statistics inform us that marriage has transformed in remarkable ways since the 1960s—so much so that it has become “deinstitutionalized” (Cherlin, 2004). Far fewer young adults are married, those who marry do so over 6 years later in life, and, perhaps most importantly, a substantially lower proportion of adults are choosing to marry at all (Cohn et al., 2011). If these patterns persist, men and women who marry will gradually approach minority status in the coming decades. An appreciation of this trend, argues Raley (2000, p.36), “demonstrates that what we know about intimate sexual unions can quickly become outdated” and thus “requires us to shift our starting point to the formation of romantic and sexual relationships in adolescence, as well as to keep our eyes on the changing character of cohabiting unions and marriages...”

The delay (and decline) of marriage and the consequent calls for research to examine the development of romantic relationships throughout earlier stages of the life-course has serious implications for a range of sociological work. This is especially true for criminology, which has given little attention to nonmarital relationships during the transition to adulthood and instead concentrated predominately on the suppressive effects of marriage on crime (King, Massoglia, & MacMillian, 2007; Laub, Nagin, & Sampson, 1998; Laub & Sampson, 2003). Criminological work on marriage remains important, yet



it is more imperative that criminologists better appreciate that men and women seldom marry during their early twenties. Further, it is pertinent that criminologists recognize that individuals who have criminal records or who are criminally active are much less likely than non-offenders to marry, and, if they do marry, more likely to delay doing so (Huebner, 2005, 2007; King & South, 2010; van Schellen et al., 2011).

As it stands, then, younger men and women, especially those with a criminal history or actively involved in crime, generally substitute marriage with relationships of the nonmarital variety, spending upwards to a decade in such partnerships before choosing to tie the knot (Warner et al., 2011). With so many individuals delaying marriage until at least their late-twenties, “the late teens and early twenties become a time for exploring their options, falling in and out of love with different people, and gaining sexual experience” (Arnett, 2004, p.73). It is a life stage that sees romantic relationships develop and dissolve at an impressive rate.

It is the effect of relationship dissolution on crime during the late-teens to mid-twenties, a juncture at which when many young men and women have traditionally moved away from crime (see however Uggen & Massoglia, 2003; Massoglia & Uggen, 2010), that this dissertation will center on. In doing so, Arnett’s (2000, 2004, 2007) theory of emerging adulthood will be used as an organizing framework. The following section provides a detailed overview of emerging adulthood, paying special attention to the following: how emerging adulthood is distinct from the life-stages traditionally referred to by developmental scholars; why, moving forward, emerging adulthood is the most suitable framework to guide research on the stage of the life-course that includes

(but is not limited to) 18 to 25 year olds; and, importantly, why the theory of emerging adulthood is relevant to understanding the behavior of at-risk men and women.

#### EMERGING ADULTHOOD: A STAGE OF INSTABILITY

In August of 2010 the *New York Times* published an op-ed that was entitled “What is it about 20-somethings?” The focus of the contribution by Robin Henig was aimed at making sense of a phenomenon new to the 21<sup>st</sup> century: why men and women in their early twenties are taking so long to “grow up.” The traditional pathway of life had “gone off course,” she maintained, and is now branded by young people who remain “untethered to romantic partners” while also shunning commitments and “forestalling the beginning of adult life.” This period she described was the stage that Jeffrey Arnett (2000, 2004) has dubbed *emerging adulthood*.

Emerging adulthood is “a new...unprecedented period of the life course” (Arnett, 2004, p.4) that is “historically embedded and culturally constructed” (Tanner & Arnett, 2009, p.30). According to Arnett (2000, 2004), it is not a universal stage of the life course, but one that was recently born in the United States and most other developed nations due to the interaction of social, cultural, and economic conditions. It is a life stage that developed as a result of the delay in marriage discussed earlier, as well as the consequent suspension of entrance into parenthood, and the postponement of long-term employment due to changes in educational norms and economic shifts attributable to globalization.

Relative to young men and women of the 1950s and 1960s, today’s generation of youth are in no rush to settle down and get married. In fact, they see the traditional

benchmarks of adulthood—marriage, children, work—not as goals to strive for but as “perils that should be avoided” until they reach the late-twenties (Arnett, 2004). Given their deferral of traditional adult roles, emerging adulthood is a stage of the life course that is characterized by great freedom for young men and women that is unprecedented in American history. At the same time, however, it is a new stage of the life-course in which anxiety, instability, and uncertainty are ever-present (Arnett, 2000).

There are five fundamental features that make emerging adulthood a unique stage of the life course (Arnett, 2000, 2004). First, it is a stage of identity exploration, in which explorations in love and sex are most central. Identity formation is associated with the romantic exploration that occurs during adolescence, (Collins, 2003; Furman & Hand, 2006; Giordano, 2003), but the key distinction is that relationships during emerging adulthood are comparatively involved and intimate (though not necessarily long-lasting). Second, it is the stage of instability. It is a time when pursuit of multiple partners or interest in multiple relationships is normative and more easily achieved due to increased, or complete, freedom from parents. It is the instability that stems from the uncertainty of relationships, both sexual and romantic, that makes it a particularly volatile period of the life-course. Third, it is the most self-focused stage of life. Trying to figure out what it is they want out of life, especially in love and in work, takes center-stage for young men and women. Fourth, it is a stage of feeling lost in transition between adolescence and adulthood. It is this feeling of being in-between that deepens identity exploration and leads to uncertainty in various life domains, especially love. Fifth, and finally, emerging adulthood is the stage of possibility. It is the period of life, Arnett contends (2004, p.8),

“when people have an unparalleled opportunity to transform their lives” and “straighten up the parts of themselves that have become twisted.”

Discussion of these five features logically leads to the question of whether the theory of emerging adulthood is needed or at all distinct from *late adolescence*, *young adulthood*, or *the transition to adulthood*, all of which sociologists, psychologists, and criminologists commonly refer to. Arnett (2000, 2004) suggests that there are indeed fundamental differences between these various stages; differences that he suggests make emerging adulthood the most accurate organization of the chapter of life that includes the late-teens to mid-twenties. Regarding late adolescence, there are few circumstances that young men and women in this developmental phase share with emerging adults. For one, the overwhelming majority of 14 to 18 year olds (late adolescents) still live at home with their parents, are enrolled in secondary school, are, by law, still under the legal authority of their parents, and are not yet of legal drinking age. While the youngest emerging adults (those aged 18, 19, and 20) still cannot legally consume alcohol, they are most often in the work force, are enrolled in college or trade school, and are much less likely to be living at home with their parents. Together these differences explicate that there is little overlap in the lives of late adolescents and emerging adults.

There are a few important differences between young adulthood and emerging adulthood as well (Arnett, 2000, 2004). First, implicit within the concept of young adulthood is that men and women have reached some standard of adulthood, including marriage, parenthood, or a job that will be long-term (Arnett, 2004, 2007). Certainly some young men and women in their early-to-mid twenties have reached these benchmarks, yet most have not, so the term is potentially misleading. In addition, young

adulthood has traditionally applied to individuals in their thirties (Erikson, 1968). To apply the same term to men and women who are in their early twenties and late-thirties is an approach that is ripe with problems.

Finally, Arnett (1998, 2000, 2007) contends that although the transition to adulthood is a useful concept it falls short of emerging adulthood on a number of fronts. One of the primary issues with the transition to adulthood is that it is attentive to who young men and women *are becoming*, not who they *are* (Arnett, 2004). The bulk of work in this area attends to the period of life that includes the late teens and early twenties, but centers on the traditional benchmarks of adulthood. This is problematic because “it narrows our perception and our understanding...of all the changes happening during those years that are unrelated to the timing of the transitions to adulthood such as marriage and parenthood” (Arnett, 2004, p.20). Finally, referring to the years that span the late-teens to the mid-twenties as a transition implies that it is a short-lived, transient phase of life. A chapter of life at least 7 years in length is nearly as long as the adolescence period, so referring to it as a transition rather than a stage of its own is problematic (Arnett, 2007).

On its face, Arnett’s conception of emerging adulthood seems to be a developmental phenomenon unique to young men and women of the middle and upper classes. The ability to explore various employment or educational opportunities is not a viable option for many disadvantaged individuals (see Wilson, 1997, 2010) and Arnett acknowledges this fact: “In many senses, it’s likely that parental support and class increase opportunities to explore possible careers than someone who has to go work after college” (2004, p.xx). Yet he asserts that this phase is potentially more meaningful for

young men and women from disadvantaged backgrounds. During this period of the life-course, these individuals experience a new degree of autonomy that provides them with an opportunity to make a serious life change. “Even if there is a correlation between childhood experiences and later development,” says Arnett (2004, p.xx), “there may be many people for whom this does not apply. And the proportion of people for whom it does not apply may grow sharply in emerging adulthood...as people gain greater freedom to run their own lives.” The argument that emerging adulthood is a developmental stage irrelevant to disadvantaged and at-risk youth is fundamentally inaccurate according to Arnett, and, perhaps more importantly, neglects the fact that “there is some degree of heterogeneity in every developmental period” (Arnett, 2007, p.70).

Nevertheless, there are a host of studies that have addressed the validity of Arnett’s contention and found that “emerging adulthood may be an age of possibilities, but those possibilities are differentially constrained by class” (Meier & Allen, 2008, p.31). For instance, Cohen and colleagues (2003) recently found that people of lower class backgrounds complete adult transitions such as marriage earlier than their middle and upper class counterparts. Consequently, these men and women are likely to experience a shorter window of emerging adulthood than individuals from more advantaged backgrounds (Cohen et al., 2003). However, other research has indicated that men with little education and low earnings are less likely to ever marry (Manning & Smock, 1995; Lloyd & South, 1996), which further confuses the issue.

Another body of work has shown that criminally involved individuals, who are often from lower socioeconomic backgrounds, delay their entry into marriage (King & South, 2010), while men who have been incarcerated are less likely to marry (Huebner,

2005, 2007; King & South, 2010). Thus, while individuals of lower socioeconomic classes may experience a shorter stint of emerging adulthood due to their earlier marital timing, evidence suggests that this is not necessarily the case for those who are criminally active. Instead, young adults involved in crime, especially those who have been incarcerated, will likely experience a delayed and “off-time” marriage. Consequently, they will experience an extension of emerging adulthood and therefore a “prolonged adolescence” (Caspi, Elder, & Herbener, 1990; see also Moffitt et al., 2002).

Uggen and Massoglia’s (2003, p.322; see also Massoglia & Uggen, 2010) recent finding that “desistance is...both a cause and a consequence of transiting the other markers of adulthood” aids in making sense of the experience of emerging adulthood for delinquent and criminally involved youth. They suggested that the decline of marriage and the proliferation of incarceration in recent decades have affected traditional conceptions of adulthood in important ways. Massoglia and Uggen (2010) conclude that desistance is indeed a marker of adulthood, but that some youth actually continue offending throughout their twenties. Such persistence in crime restricts opportunities to achieve traditional benchmarks of adulthood such as a marriage, which, in turn, allows for continued criminal involvement. Along these lines, youth who get entangled in the juvenile or criminal justice system struggle in navigating the freedoms of emerging adulthood (Arnett, 2007; Chung, Little, & Steinberg, 2005; Osgood et al., 2005; Salvatore, Taniguchi, & Welsh, 2012). To be sure, bouts of incarceration during the “prime developmental years” of emerging adulthood will make forming and maintaining an intimate relationship an arduous task (Meier & Allen, 2008, p.34). Ultimately, then, it seems that emerging adulthood is quite relevant for disadvantaged populations, especially

for vulnerable groups such as youth who have been institutionalized. That said, however, there is also mounting evidence that these groups will have fewer opportunities for change during emerging adulthood, which may stifle desistance rather than encourage it.

With Arnett's original contribution in the *American Psychologist* nearing the 3000-citation mark, it is unmistakable that his theoretical development has resonated with a wide-range of work in a variety of disciplines. There are, however, important areas of inquiry that remain unaddressed, especially within criminology. The emerging adulthood stage of the life-course has received theoretical consideration (e.g., Piquero et al., 2002), but the attention it has received is limited. Consequently, little is known about *whether, to what extent, and in what ways* the various contours of emerging adulthood may affect crime during this novel stage of the life course. Given that "events experienced in the late teens and twenties are integrated into individuals' identities and memories more so than those events occurring during younger or older life stages" (Tanner & Arnett, 2009, p.40), it is essential that we know the relationship between such events and criminal behavior. One such event may be the end of a meaningful romantic relationship.

## THE INSTABILITY OF ROMANTIC RELATIONSHIPS

The formation of intimate relationships is undoubtedly a hallmark of emerging adulthood and one of its central developmental tasks (Arnett, 2000, 2004, 2007; Furman & Shaffer, 2003; Tanner & Arnett, 2009). However, the nature of relationships occurring throughout this stage has changed in the previous decades, so much so that Arnett (2004, p.73) made the following assertion: "In fact...finding a love partner in your teens and



continuing in a relationship with that person through your early twenties, culminating in marriage, is now viewed as unhealthy, a mistake, a path likely to lead to disaster.”

That statement is, in all likelihood, a sweeping overgeneralization, yet Arnett’s depiction of the premarital relationships occurring today is one that has become ever more accurate in recent years (e.g., Bogle, 2008). The goal of establishing a lasting relationship as a late teenager and maintaining that relationship until getting married during the early twenties has, by most measures, been set to the wayside. Alternatively, young adults have become more interested in exploring their romantic options for an extended period of time, occasionally getting “lost in transition” (Smith et al., 2012), before settling down (Arnett, 2004; Crouter & Booth, 2006). The increasing delay of marriage and the desire to explore multiple relationships before tying the knot has led to a heightened instability of romantic experiences that differentiates this generation’s trajectory of romance from any other in recent history. In addition, the proliferation of incarceration has impeded the potential of many young offenders to successfully navigate romantic relationships during this stage (Tach & Edin, 2011; King & South, 2010; Apel et al., 2010; Huebner, 2005, 2007).

Nonmarital romantic partnerships that occur throughout emerging adulthood are best classified as either cohabitive or non-cohabitive. Recent estimates demonstrate that between 60 and 70% of young couples live together prior to marriage (Rhoades, Stanley, & Markman, 2009; Stanley, Rhoades, & Fincham, 2010), which indicates that cohabitive relationships are a normative and defining feature of emerging adulthood. These relationships are, however, less stable and more short-lived than marriage, especially among disadvantaged populations (Tach & Edin, 2011). Indeed, two-fifths of

relationships involving cohabitation dissolve within five years of forming (Smock, 2000) and many people now serially cohabit before getting married (Lichter & Qian, 2008). Furthermore, there also exist varying forms of cohabitation, including premarital cohabitation, uncommitted cohabitation, and committed cohabitation (Arnett, 2004), that are likely to dissolve at different rates. Of these, uncommitted cohabitive relationships, which are generally established for practical reasons (i.e. finances), are bound to be most fragile during emerging adulthood. Hence, “although it was initially a prelude to marriage and most often ended in marriage, cohabitations increasingly are unconnected with plans for marriage and result in dissolution” (Stanley et al., 2010, p.248).

The dissolution of the cohabitive and non-cohabitive partnerships in emerging adulthood is potentially problematic for a variety of reasons, although it is not a universally detrimental phenomenon. On this point, Amato and Booth (1997, p.xx) maintained the following position:

“High relationship turnover gives people increased opportunities to try out new partners and eventually settle down with a compatible mate...But ending relationships is also stressful for both parties, and singlehood (even if temporarily between relationships) is associated with lower levels of psychological and physical health. Consequently, a pattern in which people shift frequently from one relatively short-term intimate relationship to the next is unlikely to be one that maximizes the happiness of the next generation.”

Accordingly, the termination of a romantic relationship may be a constructive experience, potentially opening the door for more attractive relationship prospects and other important changes (Crouter & Booth, 2006). Generally, however, the transition

from romantically involved to single is “among the most distressing events an individual can experience” (VanderDrift, Agnew, & Wilson, 2009). In most cases, it culminates in a range of negative emotional and physical consequences, not to mention heightened substance abuse (VanderDrift, Agnew, & Wilson, 2009; Smith et al., 2012). Despite the conclusions that have amassed over the years, still little is known of the repercussions of romantic dissolution for criminal behavior throughout the various stages of the life course.

## SUMMARY

The goal of this dissertation is to extend criminological knowledge on the consequences of romantic dissolution for at-risk youth navigating the instability of emerging adulthood. This will be done in two ways. First, attention will focus on the dissolution of relationships among young, at-risk men and women from Philadelphia, Pennsylvania and Phoenix, Arizona, to test whether this form of instability is consequential for their offending trajectories at a pivotal juncture of the life course. The second set of analyses will make a methodological improvement by analyzing monthly relationship data. Annual data is unable to capture the variation in relationship status that monthly data allows for. Thus, it is plausible that measuring romantic instability more precisely is both substantively and methodologically meaningful. Prior to making these contributions the state of the literature on romantic involvement will be reviewed. Chapter two begins with an overview of three focal perspectives on offending over the life course. After that overview and an examination of how each make sense of the meaning of relationships, the chapter moves to a review of the literature on romantic

relationships and crime. In the end, it closes with an interdisciplinary review of research on romantic dissolution that helps elucidate the possible effects of relationship instability on crime during emerging adulthood.

## CHAPTER 2

### THEORETICAL FRAMEWORK

#### INTRODUCTION

The emergence of life course theory undoubtedly altered the trajectory of criminological research over the past twenty years. In fact, its influence has been so great that it is now the “most compelling and unifying framework for understanding the processes underlying continuity and change in criminal behavior over the life span” (Laub & Sampson, 2003, p.13). Three key concepts give meaning to life-course theory: *trajectories*, *transitions*, and *turning points* (see Abbott, 1997; Carlsson, 2012; Elder 1985, 1994; Laub & Sampson, 2003). A *trajectory* is effectively a pattern of behavior that spans the life course. All human trajectories are marked by *transitions* that give them their substance and meaning, such as entrance into marriage, parenthood, or employment (Elder, 1998; Laub & Sampson, 2003; Sampson & Laub, 1990). *Turning points* are best understood as a transition that significantly alters, for better or worse, an individual’s trajectory. For example, marriage is a transition that is embedded in the life trajectories of most adults that sometimes serves as a turning point. However, while marriage reroutes the life trajectories of some men and women, it does not serve as a turning point for all who enter the institution (e.g. Laub, Nagin, & Sampson, 1998). According to Abbott (1997, p.89), “what makes a turning point a turning point rather than a minor ripple is the passage of sufficient time on a new course such that it becomes clear that direction indeed been changed.”

Efforts to understand criminal behavior over the life course have taken three

distinct forms: static, dynamic, and typological (e.g., Gottfredson & Hirschi, 1990; Moffitt, 1993; Sampson & Laub, 1993; Wilson & Herrnstein, 1985). Importantly, these three theories provide differing perspectives for understanding the effect of romantic involvement on criminal behavior. The following section provides an overview of static, dynamic, and typological theories, explicating each perspective's position on the relevance of relationships for crime along the way.

## LONG VIEW(S) OF CRIME AND RELATIONSHIPS

Criminology's most empirically validated finding is that there exists an age-crime distribution that peaks during late-adolescence (between 16 and 18 years) and gradually descends thereafter (Farrington, 1986; Gottfredson & Hirschi, 1983; Sampson & Laub, 1993; Wilson & Herrnstein, 1985). There is little controversy surrounding the mere existence of the age-crime curve. However, there is extensive disagreement surrounding the processes that account for the distribution (see Blokland et al., 2005; Cernkovich & Giordano, 2001; Dannefer, 1984; Gottfredson & Hirschi, 1990; Hirschi & Gottfredson, 1995; Laub & Sampson, 2001; Simons et al., 1998).

Static theories suggest that there are stable, between-individual differences that account for the distribution of offending that peaks in late adolescence and declines for the remainder of the life course (Gottfredson & Hirschi, 1983, 1990; Wilson & Herrnstein, 1985). They maintain a "kind of people" explanation (Laub & Sampson, 2003, p.24) and contend that an individual's criminal propensity is established throughout childhood and remains stable from there forward. Static theorists also suggest that because these preexisting differences are stable over time (after childhood), the only

factor that is really associated with a decline in offending is age. To be sure, “the inexorable aging of the organism” is the singular predictor of the reduction of crime over the life course (Gottfredson & Hirschi, 1990, p.141).

Static theorists believe that any effect of life circumstances, such as relationship involvement, is “spurious” and merely a product of selection processes linked to stable preexisting differences (Gottfredson & Hirschi, 1990). Accordingly, any relationship found between romantic involvement and crime is really only an artifact of self-control. That is, individuals who “select” into marriage are thought to have higher-levels of self-control than those who do not marry at all or who enter a marriage that has no influence on their criminal trajectory (see Siennick & Osgood, 2008). Further, static theorists who cite the importance of self-control in understanding the effect of social bonds also point to the fact that offenders who marry are likely to do so with an antisocial partner (see Capaldi, Kim, Owen, 2008; Knight, 2011; Krueger et al., 1998; Moffitt et al., 2001; Rhule-Louie & McMahon, 2007; Simons et al., 2002).

Contrary to static theories, dynamic theorists adopt a “kind of contexts” argument and suggest that antisocial behavior is marked by both continuity *and* change (Laub & Sampson, 1993; Sampson & Laub, 2003, p.24). The dynamic perspective does not entirely disagree with the static position on criminal continuity, but maintains that the correlation between past and future offending is also the result of the *state dependence* whereby crime diminishes the opportunities that individuals have to develop bonds to conventional institutions such as marriage (Laub & Sampson, 2003). In other words, criminal persistence is more than the product of preexisting differences in self-control; it is also the product of the collateral consequences of crime over the remaining life

course (e.g., Apel et al., 2010; Pager, 2003). Nevertheless, dynamic theories also maintain that change in crime can occur among all types of offenders, no matter their underlying propensity, and that their establishing “stakes in conformity” is normally responsible. Ultimately, then, rather than aging being the sole determinant of crime cessation, dynamic theories suggest that change also stems from entrance into pro-social institutions post-adolescence.

Regarding relationships, dynamic theorists believe that all individuals have the capacity to have their criminal involvement altered by healthy relationships (Doherty, 2006; Horney et al., 1995; Laub, Nagin, & Sampson, 1998; Nagin & Paternoster, 1994; Piquero et al., 2002; Sampson & Laub, 1993; see also Uggen, 2000 for findings on work and desistance as well as Bouffard & Laub, 2004 for findings on military service and desistance). Dynamic theorists like Laub & Sampson (2003) also contend that involvement in pro-social institutions is largely attributable to “chance”. Accordingly, these theorists posit that even individuals with the greatest criminal propensity are able to have their life trajectories altered by meaningful relationships (Maruna, 2001; Laub & Sampson, 2003; Sampson, Laub, & Wimer, 2006).

Lastly, typological theories propose that the age-crime distribution is misleading because it lumps different types of offenders into a single group (Moffitt, 1993; Moffitt et al., 2002). Moffitt’s (1993) dual-taxonomy is the seminal study in this line of research, which established that there are actually two distinct types of offenders—Adolescent-limited (AL) and Life-course Persistent (LCP)—who differ in meaningful ways. The LCP group, whose etiology is closely linked to neglectful parenting and neuropsychological deficits, most often continues their antisocial behavior throughout their life course. AL



offenders, on the other hand, are involved in antisocial behavior only for a short while, usually spanning no longer than adolescence. This group mimics their LCP peers and engages in a normative, short-lived form of antisocial behavior due to a “maturity gap” that stems from the restrictions of adolescence and the desires of adulthood. Nearly all AL offenders eventually cease their antisocial behavior, whereas most LCP, who are “few, persistent, and pathological,” continue (Moffitt et al., 2002, p.180).

Combining the views of static and dynamic theories, typological theories (1993; see also Patterson & Yoerger, 1993) propose that different types of offender are differentially influenced by romantic involvement. They maintain that LCP offenders are unlikely to experience change due to intimate relationships and are instead likely to transform such factors into factors that contribute to offending (see also Hausmann et al., 1984). Indeed, it was originally argued by Moffitt that only the AL group has the ability to benefit from conventional pathways such as marriage. However, since her articulation of the dual-taxonomy, she and colleagues (Wright et al., 2001) have proposed an argument of “life-course interdependence” that is at odds with her original proposal: the impact of relationship involvement is more manifest for those in the LCP group. Essentially, this position posits that “those with low self-control,” such as LCP offenders, “may have “more room to change” through stable marriage than those with high self-control” (Doherty, 2006, p. 811). Some scholars have since found that the argument of Wright and colleagues is valid (e.g. Blokland & Nieuwebeerta, 2005), while others have found that it is not (e.g. Doherty, 2006; Moffitt et al., 2002). As it stands, though, there is no empirical consensus on the matter of whether self-control moderates, positively or negatively, the impact of relationships on crime.

## ROMANTIC RELATIONSHIPS AND CRIME

The divergent conclusions of static, dynamic, and typological theories indicate that the relationships-crime nexus warrants sustained theoretical attention. Of the recent efforts that have assessed the implications of relationships, most have directed attention to marital relationships (King, Massoglia, MacMillan, 2007; Sampson & Laub, 1990; Sampson & Laub, 1993; Laub, Nagin, & Sampson, 1998; Sampson, Laub, & Wimer, 2006). Attention to marriage is not new (e.g. Cavan, 1962; Knight, Osborn, & West, 1977), but Sampson and Laub's (1990, 1993) development of the age-graded theory of informal social control in the early 1990s is what gave the contemporary literature on marriage its momentum. Their analysis of the Glueck data determined that marriage steers crime-involved youth onto a more conventional pathway in adulthood (Sampson & Laub, 1990, 1993). Since *Crime in the Making*, Laub and colleagues (1998) furthered the research on marriage by assessing the importance of relationship quality, ultimately finding that "good marriages" are most instrumental to reductions in crime. Tests of the Glueck data also have shown that marriage significantly reduces criminal behavior (Sampson et al., 2006). Conclusions that suggest marriage can "knife-off" an offender's past have arrived via both qualitative analyses (Maruna, 2001; Laub & Sampson, 2003) and various quantitative analytic techniques (King et al., 2007; Laub et al., 1998; McGloin et al., 2011; Sampson et al., 2006).

Sampson and Laub's early work spawned the contemporary literature on marriage and crime, but it was their efforts a decade later that reinvigorated this line of research. In *Shared Beginnings, Divergent Lives*, Laub and Sampson (2003) maintained that empirical

attention should move beyond examining the direct effect of marriage and instead aim to better understand the mechanisms that account for the marriage effect. The next section details the various causal pathways that they discussed. Understanding how marriage leads to desistance is paramount to the current project for two main reasons. First, there is a paucity of research on nonmarital relationships, so understanding what is known about the marriage effect can be used to develop theory on such relationships. Second, because little theoretical work has expounded the potential implications of romantic dissolution, explicating the causal processes underlying romantic stability can aid in forecasting breakup effects.

#### Mechanisms Underlying the Marriage Effect

The first mechanism underlying the marriage-crime relationship is that of social bonds (Sampson & Laub, 1993; Laub et al., 1998; Laub & Sampson, 2003). It posits that changes in crime do not stem from involvement in marriage. Rather, changes in crime are the product of the quality and strength of that relationship (Laub, Nagin, & Sampson, 1998; Maume et al., 2005). Indeed, it is the extent of the investment in a relationship and a partner that is responsible for this relationship. As investment and attachment grow, there is more to lose by engaging in crime. Therefore, offenders who value their relationship have an incentive to refrain from behaviors that put it at risk.

The second mechanism was developed by Warr (1998) who proffered that it is likely the marriage effect is more complex than previously conceived, and that it may influence crime indirectly through changes in routine activities. Warr's proposition was ultimately supported when he determined that marriage lowers crime by reducing the

time that individuals spend with friends and minimizing peer influence. Relatedly, Osgood and colleagues' (1996) finding that unstructured socializing increases delinquency provides further support for this relationship insofar as time spent outside a relationship is less structured than time spent in a relationship. In essence, then, evidence suggests that the lifestyle changes that often follow marriage, such as increased time spent at home with a partner, result in conventional forms of behavior by reducing the influence of peers (Maume et al., 2005).

In addition to bonding and routine activities, Sampson and Laub (1993) also suggested that relationships may result in diminished crime due to the direct control that a romantic partner exerts over an individual. Therefore, the effect of marriage is a product of spouse's monitoring behavior. There are likely differences between the direct control that was exhibited in marriages fifty years ago and those occurring today given changes in gender, educational, and occupational norms. Women are far more likely to be employed today, and are thus contributing more to their family's economic stability. As such, they spend much less time at home, on average, in contemporary society. Less time spent at home means less monitoring of a spouse's behavior, and dual incomes equates to less pressure (and control) on men to be a sole provider. Whether these relationships are true of economically disadvantaged populations is questionable, however, as full-time employment is less likely among women in such groups. Nevertheless, research that has assessed the influence of social control within relationships remains sparse (see however Laub & Sampson, 2003; Sampson, Laub, & Wimer, 2006), so the validity of this particular mechanism has yet to be established.

The final mechanism that has been proposed to account for the impact of relationship on crime concerns cognitive changes and identity transformations (Maruna, 2001; Giordano et al., 2002). Marriage “can change one’s sense of self” and lead to “getting serious” and becoming adult (Laub & Sampson, 2003, p.43). Cognitive transformation also suggests that marriage does not exhibit a direct effect on crime, but rather indirectly serve as a “hook for change” that provides offenders with the means necessary to move away from their criminal lifestyle (Giordano et al., 2002, p.992; see also Siennick & Osgood, 2008; Simons & Barr, forthcoming).

In addition to the aforementioned mechanisms, scholars have recently proposed that the effect of relationships is contingent upon social learning processes (Capaldi, Kim, & Owen, 2008; Knight, 2012; Moffitt et al., 2001; Rhule-Louie & McMahon, 2007; Simons et al., 2002; van Schellen et al., 2011; Woodward et al., 2002). Assortative mating and homogamy may lead offenders, especially those with low self-control, to form a relationship with a partner who is also antisocial. A relationship involving two antisocial partners is not as likely to exhibit a protective influence directly or via attachment, monitoring, or control, and is also less likely to encourage identity transformation. Instead, antisocial partnerships are bound to introduce more problems into an individual’s life. Simons and colleagues (2002) found evidence of this with their finding that ties to an antisocial partner result in heightened delinquency (see also Moffitt et al., 2001). Further, van Schellen and colleagues (2011) recently concluded that offenders who marry are more likely to do so with a partner who is antisocial, which thereby undermines the protective impact of marriage that has traditionally been identified. Another of their recent studies yielded evidence that suggests marriage to an

antisocial spouse is “indistinguishable from singlehood” (van Schellen, Apel, & Nieuwbeerta, forthcoming, p.15 of 23).

In summary, there are a variety of mechanisms that have been proposed to account for the marriage effect. To be sure, attachment to a romantic partner, restructured routine activities, social control, and identity transformations all have the potential to steer married offenders into a more conventional trajectory. Additionally, research has recently focused attention to the import of partner characteristics. The conclusions of this work indicate that the influence of the proposed causal mechanisms depends on whether, and to what extent, a partner is antisocial. If a marriage involves two antisocial partners, it is likely that some of the proposed mechanisms, such as social control or changes in routine activities, will not be at work. That said, the important question for the purposes of the current work is whether these mechanisms also apply to nonmarital partnerships. Accordingly, the following section will discuss the relevance of the proposed mechanisms for cohabitive and dating relationships. This review is also meaningful because it sets the stage for hypothesizing the potential effects of relationship dissolution among different relationship types given that little theory has centered on that phenomenon.

### Applying the Mechanisms to Nonmarital Relationships

There are two primary reasons for understanding whether the previously reviewed causal mechanisms for marriage also apply to nonmarital relationships. First, and foremost, the institution of marriage has undergone significant changes over the past fifty years. Approximately 60% of 18-29 year olds were married in 1960; by 2010, that

number had plummeted to 20% (Cohn et al., 2011). Thus, there is evidence to suggest that a focus on the effect of nonmarital relationships during this age-range is more fruitful. In addition to the marriage decline, incarceration rates have skyrocketed since the mid-20<sup>th</sup> century and this expansion has had dire social consequences (Clear, 2004). One such consequence of incarceration is the effect it has had on marriage formation (Huebner, 2005, 2007; Lopoo & Western, 2005; see however Apel et al., 2010 for findings from the Netherlands). Indeed, a growing body of literature conveys that individuals who have been incarcerated experience a far lower likelihood of marrying. Given that marriage is less likely among this population, it should follow that attention shift to the nonmarital relationships that they are alternatively involved in, and that are now the most common relationships during “emerging adulthood” (Amato et al., 2007; Arnett, 2004; Cherlin, 2009; Cohn et al., 2011

In general, research that has examined the influence of “cohabitive” and “non-cohabitive” relationships (Seltzer, 2000; Waite, 2000) on crime during emerging adulthood is relatively scarce (Capaldi et al., 2008; Horney et al., 1995; Simons & Barr, forthcoming; Simons et al., 2002). The little evidence that has amassed indicates that these relationships have mixed effects on crime. For instance, Capaldi and colleagues (2008) recently found that nonmarital relationships, including cohabitation and dating, resulted in lower levels of offending among a contemporary cohort of at-risk men. Further evidence of a protective cohabitive effect was uncovered by Duncan and colleagues’ (2006) assessment of licit and illicit drug use and Sampson and colleagues’ (2006) examination of crime, but the effect was not as strong as that for marriage in either study (see Savolainen, 2009 for finding of a greater cohabitation effect from a

Finnish sample). On the other hand, other studies have determined that living with a girlfriend is associated with higher levels of offending (Horney et al., 1995), or that cohabitation exhibits no influence at all on self-reported offending (Lonardo et al., 2010). Thus, the few empirical tests that have been performed tell us that there is some variation in the effect of nonmarital relationships on crime.

*Attachment/Bonding.* Do the various causal mechanisms proposed by Laub and Sampson (2003) apply equally well to nonmarital relationships? The answer to this is not as straightforward as would be expected. Of the various mechanisms underlying the marriage effect, attachment/social bonding is the most difficult to make sense of due to the heterogeneity of stability and levels of attachment in nonmarital relationships. While there is an increased level of social control that comes with cohabitation, such living arrangements are not necessarily indicative of an increased level of relationship quality, commitment, or stability (Brown & Booth, 1996; Kiernan, 1999; Stanley, Whitton, & Markman, 2004). However, some research suggests that there are few differences between cohabitation and marriage when cohabiting individuals intend to marry (Brown, 2004). Cohabitors who do eventually marry, however, “report more happiness with and less instability of their relationships...and fewer disagreements” compared to individuals who continue cohabiting long-term (Brown, 2004). Dating relationships, on the other hand, may involve high levels of attachment and “love” (McCarthy & Casey, 2008) and are more likely to last longer than a year than they were in the 1950s (Waite, 2000). However, they are also likely to be characterized by transiency, a lack of commitment, ambiguity, and low levels of attachment (Crouter & Booth, 2006).



Not surprisingly, research has recently suggested that, in contrast to marriage, what is most important to understanding the influence of nonmarital relationships is their overall quality (Giordano, Schroeder, & Cernkovich, 2007; Giordano et al., 2010; Simons et al., 2002; Simons & Barr, forthcoming). Simons and Barr (forthcoming, p.3) propose that this is the case because “while the institution of marriage may foster a more conventional identity regardless of relationship quality, only highly gratifying nonmarital romantic relationships would be expected to produce this effect.” In other words, marriage may influence behavior irrespective of quality, whereas the influence of nonmarital relationships is more likely to be conditioned by the extent that an individual “values” and is therefore invested in a relationship. Therefore, it should follow that there will be considerable variation in the effect of cohabitation and dating. Cohabitation’s influence will likely depend on whether the union was formed as a precursor to marriage (premarital cohabitation), “solely for practical reasons” (uncommitted cohabitation), or as a long-term alternative to marriage (committed cohabitation) (Arnett, 2004, p.108-109), while the influence of dating relationships will be dependent upon whether they involve strong emotions (i.e. love) and sexual intimacy (McCarthy & Casey, 2008). Overall, it seems the evidence suggests that nonmarital relationships have the potential to influence crime much the same way marriage does, but that they necessarily require higher levels of commitment and quality than marriage.

*Routine Activities.* There are likely to be differences between nonmarital relationships and marital unions when it comes to routine activities and social control. However, what is known about cohabitation and dating relationships leads to differing expectations in

regard to these mechanisms. Because cohabitation involves co-residency there is a greater likelihood that such arrangements will be associated with high levels of partner monitoring, which increases the probability of routine activities being altered. According to Brown (2004, p.16), interaction with a partner is unlikely to change when cohabiters enter into marriage, indicating that levels of social control are comparable in these relationships. To be sure, most evidence suggests that cohabitation may affect crime through increased social control and monitoring by partners to “minimize...health risk or legal penalties” (Duncan et al., 2006), which consequently reduces the time that partners spend with problem peers (see Brown & Booth, 1996; Stanley, Whitton, & Markman, 2004; Warr, 1998). Support of for this notion is not universal, however, given Horney and colleagues’ (1995) determination that living with a girlfriend is associated with higher levels of self-reported offending.

Dating relationships are unlikely to exhibit the same degree of social control as cohabitive relationships and are thus less likely to reduce exposure to delinquent peers. Obviously, dating does not entail residence with a romantic partner, so there is little monitoring that takes place outside of the time that is purposively spent together. In fact, rather than reduce exposure to peers, there is evidence that nonmarital dating relationships increase socialization that includes alcohol (Engels & Knibbe, 2000), consequently leading to a greater likelihood of antisocial behavior (Fergusson & Horwood, 2000). Taken together, the key differences in the functioning of cohabitive and dating relationships suggest that the former relationship type is more likely to reduce crime through heightened social control and reductions in delinquent peer exposure. In fact, it is probable than cohabitive unions exhibit a protective effect via these mechanisms

that is similar to that found for marriage. However, because “individuals concede to the wishes of their romantic partner to the extent that they possess an emotional attachment to the person and therefore strive to avoid actions that would jeopardize the relationship” (Simons & Barr, forthcoming, p.4), dating may also exhibit an effect through these processes, although it is not nearly as likely when partners do not co-reside.

*Cognitive Changes.* There has been little attention to whether nonmarital relationships are as likely as marital relationships to motivate cognitive transformation and identity change (Maruna, 2001). There are, however, reasons to believe that such change is not only possible, but likely (see Fisher, 2004). Indeed, high levels of intimacy and attachment are not features limited to marital relationships; they also characterize most cohabitive unions and many dating relationships as well. As such, it makes sense that these relationships, when highly valued, have a chance to evoke positive identity changes that serve as “hooks for change” and encourage individuals to desist from crime (e.g. Giordano, Cernkovich, & Rudolph, 2002).

Recent tests of cognitive shifts have been conducted by Simons and colleagues (Simons & Burt, 2011; Simons & Barr, forthcoming). Most recently, Simons and Barr (forthcoming) found that the quality of nonmarital romantic relationships was associated with changes to the “criminogenic knowledge structure” that many offenders are bound by (Simons & Burt, 2011). They determined that relationship quality led to a decrease in offenders’ hostile view of people and relationships, concern with immediate gratification, and cynical view of conventional conduct norms (Simons & Barr, forthcoming). In fact, this change in cognition accounted for close to 40% of relationship quality’s effect on

crime and brought the effect of deviant peers to non-significance. Thus, despite limited evidence, nonmarital relationships also appear to have the capacity to serve as hooks for change when the quality of relationships is high (Giordano et al., 2002). Thus, it appears that cognitive transformation is not a phenomenon unique to marriage ( see also Giordano, Schroeder, & Cernkovich, 2007).

## ROMANTIC DISSOLUTION

The previous review of the mechanisms that account for the effect of relationships on is crime useful because it aids in the development of theory concerning the implications of romantic dissolution. To date, only a few efforts have focused attention to what happens when relationships dissolve, and most of that knowledge is on the effects of divorce. Given the decline and delay of marriage in recent decades (Cohn et al., 2011; Waite, 2000), there is reason for that focus to change. The relationships occurring during the early and mid twenties are now nonmarital in nature, and more unstable than in any point in recent history. To be sure, the instability that once characterized youthful romantic relationships is now seen in relationships that take place throughout the twenties (Arnett, 2004). Given both the decline in marriage and the consequent instability of emerging adulthood's romantic relationships, an understanding of the implications of contemporary relationship dissolution is, more than ever, a remarkably meaningful area for empirical inquiry, especially for criminologists who are interested in furthering contextualizing the field's understanding of crime over the life-course.

The remainder of this chapter is comprised of three parts. The first part provides a brief overview of the various sources of relationship instability to better understand its

incidence. A few recent criminological studies have focused on the implications of incarceration for divorce (Apel et al. 2010; Lopoo & Western, 2005; Massoglia, Remster, & King, 2011), so these studies will receive special attention. The second section moves to a review more pertinent to this dissertation's focus by reviewing the literature on the emotional and behavioral effects of relationship breakup. Only a hint of attention has focused on the effects of breakup on crime, so attention will center mostly on dissolution's effect on behaviors that are analogous to crime (e.g. substance use). The third and final section highlights the various causal mechanisms that Larson and Sweeten (2012) recently hypothesized likely account for the consequences of romantic dissolution. After discussing those three mechanisms, the section closes by discussing two additional considerations that must be made by research on romantic dissolution moving forward.

### Sources of Dissolution

There are a variety of factors internal to romantic relationships that increase their chances of ending. In one of the landmark studies in this area, Simpson (1987) arrived at a number of important findings. He found that partnerships that entailed greater satisfaction, closeness, and investment were less likely to end (see also Felmlee et al, 1990). Moreover, he determined that romantic dissolution is significantly more likely if either partner believes that alternatives are readily available. Research in this area has also indicated that bi-racial couples also face greater levels of relationship instability (Felmlee et al., 1990) and that dating violence is also an important risk factor (Lewis & Fremouw, 2000). Despite the value of these conclusions, none come as a surprise. Relationships that are strong, healthy, valued, and enduring are unlikely to end.

There are also important factors external to relationships that can cause romantic dissolution. Within the criminological literature, incarceration has been shown to deteriorate romantic relationships. The effects of incarceration have only been tested using marital relationships (Lopoo & Western, 2005; Massoglia, Remster, & King, 2011), but the evidence from these confirms that relationships have little chance of surviving incarceration. In fact, men who are incarcerated experience marriage failure at a rate three times higher than their non-incarcerated counterpart (Lopoo & Western, 2005). More recent evidence from Apel and colleagues (2010) confirms the effect of incarceration on divorce, and shows that the “effect is substantively large and grows with the passage of time, persisting for up to 10 years following first-time imprisonment” (p.292). Finally, the most recent test of this effect by Massoglia, Remster, and King (2011) focused attention to *why* incarceration has such dire consequences for marriages. They proposed that there were two potential avenues: stigma and separation. Using the NLSY79, they determined that incarceration increased divorce because partners were forced to be separated for significant amounts of time, which limits both physical and emotional connection. Furthermore, “the incarceration of a family member causes a number of hardships...stress, financial problems, and increase household responsibility...that are detrimental to relationships” (Massoglia et al., 2011, p.148). Importantly, the authors also pointed to the fact that 40 percent of marriages dissolved post-incarceration as evidence that partners may undergo changes during incarceration, and that reentry into the household post-release is a potentially tumultuous process.

These literatures show that the dissolution of relationships can occur for a variety of reasons, which involve factors that are both internal and external to relationships.

Given that the current work focuses on a sample of at-risk youth, the finding that marriages end at a higher rate when hit by incarceration is especially meaningful. Also important is that scholars have noted that the effect of incarceration on other relationship types needs to be addressed. In fact, Apel et al. (2010, p.293) examined a cohort from the Netherlands, their suggestion applies to samples from the United States: “We should qualify our conclusions by drawing attention to unmarried cohabitation as a growing living arrangement in the United States” that is “so normative that it has even become a substitute for marriage.” Accordingly, nonmarital relationships of both the cohabitive and non-cohabitive variety need to become a central consideration in future research. The present effort is a step in that direction.

#### Emotional Effects of Romantic Dissolution

While the *causes* of romantic dissolution have received impressive empirical attention over the years, that attention has been limited relative to the *effects* of dissolution. In general, this research overwhelmingly shows that “few experiences in life...are capable of producing more emotional distress, anguish, and suffering than the dissolution of an important relationship” (Simpson, 1987, p.683). Indeed, the emotional and mental consequences of relationship instability/dissolution are many and the literature in this area has elucidated that fact. Romantic dissolution is a phenomenon that spares few people (Baumeister et al., 1993) and elicits a plethora of difficult emotions (Baumeister et al., 2001; Fagundes, 2012; Field et al., 2009; Fisher et al., 2010; Monroe et al., 1999; Perilloux & Buss, 2008). It is associated with an increased likelihood of suicide and the onset of major depressive disorder (Monroe et al., 2010) and emotional

distress, including anger, anxiety, and irritation (Park et al., 2011). It also contributes to the increased incidence of mood disorders (Overbeek et al., 2003). Furthermore, research on dissolution has also revealed that the termination of a relationship is associated with physical pain and has the potential to elicit feelings that are comparable to cocaine withdrawal (Eisenberger, 2012; Fisher, 2006).

Not all bouts of relationship instability are followed by negative emotions, though. According to Simpson (1987, p.690), “the level of intrinsic investment,” particularly attachment and duration, “should forecast emotional distress.” The perceived ease of finding a new partner should also have an effect on post-dissolution distress, with individuals who are not confident in their ability to do so being far more vulnerable to emotional distress. Thus, the effect of relationship instability is highly dependent on which partner chooses to terminate a relationship, with individuals who are left by their partner being affected by a more intense array of emotion (Mitka & Bloom, 1980). Jointly, the findings of this literature lend credence to the work of Baumeister and colleagues (2001), who found that the influence of bad events is greater than positive ones. That specific conclusion in mind, it seems that events such as relationship termination affect an individual’s life, and potentially life-course, in a manner that overshadows the effect of positive experiences, furthering the significance of criminological work shifting its lens to the instability of relationships. This is an important consideration for research interested in understanding the various implications of relationships.

Behavioral Effects of Romantic Dissolution



While criminological attention to the instability of romantic relationships is lacking, there is evidence that relationship termination is associated with various antisocial behaviors, including alcohol and substance use as well as stalking and unwanted pursuit behaviors post-dissolution (Davis et al., 2003; Fleming et al., 2010; Smith et al., 2012; Leonard & Rothbard, 1999; Park et al., 2011). Further, there is evidence that relationship termination is associated with heightened levels of aggression (Baumeister et al., 2001; Fisher et al., 2010). Research on substance use subsequent to relationship dissolution shows that there is an increase in both alcohol consumption and drug use (Fleming et al., 2010). However, there are also studies that find that substance use following relationship termination is dependent upon the characteristics of a partner (Smith et al., 2012). For instance, individuals who experience the termination of a relationship with a problem drinking partner showed reductions in their drinking behavior, whereas those who had a relationship with a partner did not abuse alcohol experienced increased frequency of drinking and higher levels of consumption. This research suggests that ending a relationship is not universally damaging and, in some cases, may result in prosocial behavioral adjustments. This possibility needs to be assessed within studies on relationship instability and criminal behavior.

In addition to relationship instability being associated with changes in substance use, it is also linked to aggression (Leary & Springer, 2001; MacDonald & Leary, 2005). Indeed, research has found that experiencing the loss of a meaningful relationship, or “hurt feelings,” can cause a physiological response that includes anxiety, higher blood pressure, and aggressive behavior. The aggression that stems from romantic dissolution is often accompanied by a desire to hurt the person that inflicted the harm, which, in some

cases, results in serious violent behavior (Leary & Springer, 2001). Furthermore, “those individuals who kill their spouses usually do so during periods of perceived or actual abandonment” (MacDonald & Leary, 2005, p. 214; see Dutton, 2002). This in mind, there appears to be cause to believe that relationship termination may be more strongly associated with certain types of offending than others.

Finally, a paucity of work has examined the impact of relationship dissolution on crime. The most recent of this work focused on marital relationships, however. For instance, in *Crime in the Making*, Sampson and Laub (1993) concluded that marital instability was associated with subsequent increases in antisocial behavior. More recently, Van Schellen (2012) also found evidence of a divorce effect. The effect, however, was “only found for offenders who divorced a non-convicted spouse” (van Schellen, 2012, p.143). For offenders who divorced a spouse who was also criminal there was no notable increase in offending.

In sum, while some work has indicated that relationship dissolution can be a “relief” (see Rhoades et al., 2011), the bulk of evidence has pointed to starker outcomes that entail deleterious emotions and problem behaviors. Nevertheless, the evidence that exists on relationship dissolution’s effect on crime is sparse. Only a small handful of studies have examined this phenomenon’s relevance to criminological theorizing, and all but one of these few works has assessed the implications of marital dissolution (see however Larson & Sweeten, 2012). As such, given the changes to the institution of marriage, the rise of emerging adulthood (along with its inherent instability), and the consequent extension of adolescence (see Moffitt et al., 2002; Massoglia & Uggen, 2010), future efforts should concentrate on improving our understanding of the

implications of nonmarital relationship dissolution.

### Mechanisms Underlying Romantic Dissolution

Research on romantic dissolution and crime, especially among nonmarital relationships, is seriously lacking. Recently, however, Larson and Sweeten (2012) proposed three potential mechanisms through which they believe relationship dissolution is likely to contribute to offending. The mechanisms that they suggested might be responsible for the “breakup” effect included strain, social control, and delinquent peer exposure. This final section reviews these mechanisms and also examines whether they are equally likely to apply to cohabitive and dating relationships. The section closes with a discussion of a few other important considerations that must be made in future work on relationship dissolution and crime.

*Strain/Negative Emotionality.* First, general strain theory suggest that the loss of a positively valued stimuli will be followed by negative emotions that could lead to crime (Agnew, 1992). The negative emotions that are known to follow relationship instability may cause an individual to cope via criminal behavior or some form of substance use in an effort to escape the source of their adversity. Given the research that has assessed the emotional and behavioral effects of breakups, it should not be surprising that crime may be an outlet for the scorned to escape their anger or frustration.

Do cohabitive and dating relationships endure the same degree of strain when they reach their end? In fact, evidence suggests that cohabiting relationships may be more difficult to terminate than dating relationships given the “inertia” that is involved

(Rhoades, Stanley, Markman, 2010; Stanley, Rhoades, & Fincham, 2010). Inertia in cohabitive unions is conceivably stronger than it is for dating relationships because of the shared obligations and responsibilities that come with co-residence. Like marriage, cohabitive unions more than likely involve shared financial commitments. When relationships end, it is probable that financial stress accompanies the breakup. For example, cohabiting couples often pool resources, such as payment for rent, utilities, and groceries (Kenney, 2004), which is good indication that these relationships are not financially stable. Thus, irrespective of attachments, financial burdens stemming from the dissolution of cohabitive unions have the potential to produce more strain than that occurring within dating relationships.

Furthermore, co-residence, on average, is likely to entail higher levels of intimacy and commitment than dating relationships (Stanley, Rhoades, & Markman, 2006). However, assuming that this relationship exists is potentially problematic because dating relationships often involve intense emotions and “love” (McCarthy & Casey, 2008; Giordano et al., 2010). Moreover, there are a variety of cohabitive unions, including nonmarital, committed, and uncommitted, that involve varying levels of attachment and commitment. The weaker the investment in a relationship, the less likely it is that there will be problematic levels of strain.

*Delinquent Peer Exposure.* Second, Larson and Sweeten (2012) suggested that routine activities might change following the termination of a relationship in a manner that increases exposure to problem peers. Simply put, if relationships usually encourage romantic partners to spend less time with their peers to spend more time with their

partner (Warr, 1998), it is likely that effect disappears when individuals are no longer romantically involved. Therefore, romantic instability may affect criminal behavior by increasing unstructured socializing and time spent with delinquent peers.

Do cohabitive and dating relationships experience the same changes in routine activities when they dissolve? Contrary to differences in strain that are likely to follow relationship dissolution, there are no theoretical reasons to believe that changes in delinquent exposure post-dissolution will differ among cohabiters and daters. That said, however, there are likely theoretically meaningful differences in delinquent peer exposure while relationships are ongoing, with daters being more likely to be actively involved with their social network. If they are, they may spend some more time with their peers post-breakup, but the increase in the proportion of time spent with peers will probably be greater for cohabiters given the additional changes they experience (i.e. partner moving out of the home). As such, it is likely that change in exposure to delinquent peers post-dissolution will increase criminal opportunities for cohabiters more than it would daters.

*Informal Social Control.* Third, and finally, findings on the importance of social control and the monitoring of behavior by a romantic partner would suggest that relationship instability may be followed a diminished level of social control (Laub & Sampson, 2003; Sampson & Laub, 2003; Warr, 1998). That is, romantic partners will no longer monitor the behavior of their partners after their relationship has ended.

Do cohabitive and dating relationships experience similar changes in the extent of social control post-breakup? Similar to changes in delinquent peer exposure, this

relationship is uncertain. Again there is reason to believe that the reduction in social control after a breakup will have differing effects for cohabiters and daters. On the other hand, however, the relative change in social control that cohabiters experience will be greater than daters because they lose the monitoring that follows residing with a partner. The question again becomes whether a comparatively higher level of freedom post-dissolution for cohabiters is more meaningful than the loss of social control that daters experience. This relationship is unclear, but given the varying magnitude of the change that each group experiences, there is reason to suspect that the lives of cohabiters will be more strongly impacted post-dissolution

*Further Considerations.* In addition to the causal mechanisms proposed by Larson and Sweeten (2012), it may be the case that the effect of relationship dissolution on criminal behavior is dependent upon other factors as well. First, given the research that has amassed concerning the effect of antisocial partners on crime, there is reason to suspect that the effect of breakup will differ when it involves an antisocial partner. Second, the relationship that has been found between romantic dissolution and aggression indicates that such experiences may affect changes in certain types of crime more than others (e.g. aggressive, income, etc.) (MacDonald & Leary, 2005).

As discussed earlier, the effect of a romantic relationship is often dependent upon whether a partner is also antisocial (Simons et al., 2002). This literature informs us that a protective impact of relationships is unlikely in these cases, and, in other, cases, such relationships serve as a risk factor for increased crime. Given these findings, the effect of relationship dissolution among an antisocial couple could go three ways. First, studies

have indicated that antisocial relationships are unhealthy, conflicted, and volatile, so the termination of such a relationship could lead to a healthier, less conflicted lifestyle, and thus less crime. Second, it may be that case that antisocial relationships are not characterized by high levels of attachment or investment (see Giordano et al., 2010 for evidence against this possibility). In these relationships, it may be that the effect of a breakup would be null and not influence an individual's criminal behavior post-dissolution. Third, and finally, it could be that the termination of an antisocial relationship leads to increased crime. Indeed, criminal relationships could be characterized by high levels of attachment and result in high levels of strain when they dissolve (see Giordano et al., 2010). If that is the case, it may be that relationship termination is a good thing for some at-risk individuals and a bad thing for others.

Lastly, the impact of relationship instability on crime may depend on the nature of the offense under study. Psychological literature has found that individuals who are affected by an event such as the dissolution of a romantic relationships often experience heightened levels of aggression following the event (Leary & Springer, 2001; MacDonald & Leary, 2005). If this is the case, it could be that relationship dissolution is more strongly related to aggressive forms of crime than income or property crime.

## SUMMARY

There have been notable changes to the nature of relationships that take precedent during emerging adulthood due to the decline and delay of marriage over the past fifty years. As stated in recent criminological work on relationships (Capaldi et al., 2008, p.268), "A focus on the institution of marriage...seems less relevant for contemporary

theorizing regarding persistence and desistance of crime.” This work embraces that position. In addition, it attends to the fact both that incarceration and crime have increasingly kept disadvantaged emerging adults away from the aisle. Lastly, and most importantly, it acknowledges that the relationships occurring during the late-teens and twenties are more unstable than they have been at any point in history, and calls attention to the implications of this instability for criminal behavior

Moffitt and colleagues (2002) pointed to the period of emerging adulthood and noted that it is possible that there has been an extension of the “maturity gap” associated with temporary offending (see also Uggen & Massoglia, 2003). Given this argument, it could be that relationship dissolution in emerging adulthood serves as a “snare” that results in continuity in offending during a time that has traditionally been characterized by declines in crime. In fact, Capaldi and colleagues (2008, p.268) recently pointed to the significance of such a question: “...as Thornberry (2005) points out, the movement toward desistance seems to start for many people at a relatively early age, before marriage, work, and family, which have been hypothesized as key to desistance...Perhaps, rather than predicting desistance, the more compelling task is to explain why some prior offenders persist in crime, rather than following the usual developmental pathway of desistance.” Accordingly, the present work extends criminological research on crime by examining nonmarital relationship dissolution to determine whether it has any bearing on continued offending throughout the emerging adulthood stage.



## Chapter 3

### DATA AND METHODS

#### OVERVIEW

This chapter is comprised of three sections that describe the data, measures, and methods employed throughout the current work. The first of these sections highlights the Pathways to Desistance project, focusing attention to the characteristics of the Pathways participants and the various sampling techniques that were used to collect the data. The current project is the first to make use of the Pathways to Desistance data specifically for the purposes of investigating the potential implications of romantic involvement for crime during emerging adulthood. Section two discusses the set of measures that are used throughout this study. More specifically, it highlights the operationalization of the key outcome and independent variables, as well as the medley of control variables that are also meaningful. The third and final section of this chapter centers on the analytic strategy that guides the current work. Here both fixed effects and random effects models are discussed, which are the statistical technique most appropriate for this study's interest in estimating within- and between-individual changes in crime associated with relationship dissolution.

#### DATA

##### Sample

The Pathways to Desistance study is a prospective examination of 1,354 serious juvenile offenders navigating the transition from adolescence to emerging adulthood. The goal of the Pathways project, which began interviewing participants between 2000 and

2003, is to “elucidate how developmental processes, social context, and intervention and sanctioning experiences affect the process of desistance from crime” (Schubert et al., 2004, p.238; see also Mulvey, 2004). The young males (n = 1,170) and females (n = 184) involved in the investigation are predominately African American or Hispanic (74.9%), and were adjudicated in one of two jurisdictions: Philadelphia, Pennsylvania (n = 700) or Phoenix, Arizona (n = 654). Youth qualified for participation in this study if they were 14 to 17 years old when they committed the felony or the serious property, weapon, or sexual misdemeanor of which they were adjudicated.

#### Procedures

Roughly 10,461 juveniles between the ages of 14 and 17 years were processed in Philadelphia and Arizona from November of 2000 to January of 2003 (Schubert et al., 2004). Of these cases, 1,272 were unresolved and 5,382 were not found guilty of a felony or an eligible property, weapon, or sexual misdemeanor. Given this attrition, 3,807 youth were adjudicated on an eligible charge, but only 2,008 were approached to participate in the study. The non-attempted cases (n = 1,799) were excluded due to various operational issues. For instance, given that so many youth are involved in the justice system for drug-related crimes, the study capped the proportion of males with such offenses to 15 percent of the sample in an effort to maintain sufficient heterogeneity. Accordingly, “the enrolled adolescents are offenders with sufficiently serious charges and histories to be relevant for policy discussions yet heterogeneous enough to provide a picture of the relative impact of interventions, sanctions, and life changes” (Mulvey, 2004, p.211). In the end, 67 percent (n = 1,354) of the juveniles who were approached to participate in the study enrolled.

There are a handful of statistically significant differences between the adjudicated youth who opted to participate in the study and those who did not (see Schubert et al., 2004, p.249). For example, enrolled youth were, on average, 15.9 years old when they were adjudicated, compared to non-enrolled youth who were 16.1 years of age. The enrolled youth also had more prior petitions than the non-enrolled group (2.1 versus 1.5). Additionally, study participants were more likely to be female (14 percent versus 9 percent) and white (25 percent versus 20 percent), but less likely to be African American (44 percent versus 49%). While these differences are all statistically significant, they are not concerning from a substantive standpoint.

Importantly, the males and females in this study were involved in either the juvenile system or the adult system prior to their first interview. The interviews of the juvenile offenders were conducted within 75 days of their adjudication, whereas interviews of the offenders processed in adult court were performed within 90 days of their decertification hearing (Philadelphia) or arraignment (Phoenix) (Schubert et al., 2004). Following their baseline interview, the participants were followed-up with at 6-month intervals for their first three years in the study. From that point forward, they were interviewed annually for 4 years, bringing the duration of data collection to a total of 7 years (and 10 post-baseline waves).

Each interview was scheduled based on the date on which youth completed their baseline interview to ensure that the interviewing was done at nearly equal intervals for all participants (Schubert et al., 2004). Moreover, follow-up, or “time-point,” interviews had to be completed in a specific time-frame. Interviews began 6 weeks prior to each youth’s target date, which was developed using the date of their baseline interview, and

remained open for two months after the target date. Importantly, “if an interview is not completed within 8 weeks of the target date, that particular time-point interview is considered missed, and no further attempts are made to interview these individuals until the next time-point interview” (Schubert, 2004, p.240).

## Retention

Both the time-point and cumulative retention rates of the Pathways study are particularly impressive. Regarding time-point retention, 93 percent of participants were interviewed at the 6- and 12-month follow-ups; 91 percent were interviewed at the 18-, 24-, 30-, and 36-month follow-ups; 89 percent were interviewed at the 48- and 60-month follow-ups; and 87 and 84 percent were interviewed at the 72- and 84-month follow-ups, respectively. Hence, after 7 years of following the 1,354 juveniles enrolled in the study, the attrition rate was limited to a mere 16 percent of participants; an impressive feat for a longitudinal study of at-risk youth.

What is more, cumulative retention rates of the Pathways study were quite high. At the 7-year mark, approximately 86 percent of participants completed at least 8 of the 10 follow-up interviews (see <http://www.pathwaysstudy.pitt.edu/>). Specifically, 63.3 percent completed all 10 interviews, 16.5 percent completed 9 of 10 interviews, and 6.7 percent completed 8 of 10 interviews. Most importantly, however, only 2 percent of the study participants failed to complete fewer than two follow-up interviews. This is especially meaningful given that fixed-effects modeling techniques require that participants are observed on at least two separate occasions (Allison, 1994; Singer & Willett, 2003).

## ANALYTIC STRATEGY

Given the multi-wave, panel nature of the Pathways data, the current study employs fixed effects models to assess the impact of romantic dissolution on offending. Fixed-effects models require that the outcome variable be measured on at least two occasions and that the independent variable of interest hypothetically can occur during any wave of the data that is modeled (Allison, 1994). Importantly, fixed-effects models only examine factors that contribute to within-individual change; they do not test for the between-individual effects of independent variables. Consequently, this modeling technique measures change within units (e.g. individuals, nations, etc.) across time. As such, fixed-effects models require that all predictor variables vary sufficiently across panels. Time-invariant predictors, such as race or gender, cannot be included in fixed-effects models given that they endure no change across time. Any model interested in examining the effects of time-invariant predictors need to refer to a different type of panel-data analysis (e.g. a random-effects model or some form of a hybrid model), or, alternatively, partition fixed-effects models by the time-invariant measures of interest (e.g. location, race, gender) and assess differences in effects across models using z-tests (see Paternoster et al., 1998).

### Advantages of Fixed-effects Models

According to Allison (1994, p.182-183), fixed-effects models are advantageous because they allow for the estimation and test of more complicated effects of events, provide more *precise* estimates of those effects, and rule out important alternative

hypotheses. Furthermore, fixed-effects models provide estimates that move closer to causality than many other methods. Therefore, if romantic dissolution is identified as having an effect on offending in the current study, the fixed-effects approach comes closer than other methods in determining the causal nature of that effect (Halaby, 2003).

What sets fixed-effects models apart is their ability to control for unobservables (Singer & Willet, 2003; Worrall, 2010). That is, fixed-effects models control for “time-invariant unit-specific unobservables that represent permanent properties of units” (Halaby, 2003, p.508). In other words, fixed-effects models control for the potential influence of any time-invariant characteristics specific to an individual that may directly elicit change in an outcome or influence the effect that key independent variables have on the outcome. Accordingly, the estimates that fixed-effects models provide are precise. Furthermore, fixed effects models take into account the considerable dependence that exists across panel data. Observations that are repeated on multiple occasions for the same individuals generally do not differ significantly across time. Failure to account for this serial autocorrelation in statistical models would produce estimates that are highly vulnerable to identifying relationships that do not exist.

#### Disadvantages of Fixed-effects Models

There are, however, a number of disadvantages to fixed-effects models. Allison (1994; see also Worrall, 2010) discusses three disadvantages of fixed-effects models that he believes are most pertinent to scholars who are deciding among various forms of estimations. The first downfall of fixed-effects models is that the effects of variables that are constant over time cannot be used. That is, the effects of individual attributes such as

gender or race cannot be modeled. In addition, the fixed-effects model requires that many parameters are adjusted for, so it sacrifices efficiency for consistency relative to other types of estimation. Finally, the ordinary least squares fixed-effects method does not always deal effectively with the serial autocorrelation (i.e. correlation of predictor with itself over time).

Regarding the inability of fixed-effects to control for time-invariant factors, Allison (1994, p.192) nevertheless asserted: “Although the inability to estimate the effects of time-constant variables may seem daunting to those who are accustomed to throwing everything into their models, I do not see it as a substantial drawback for those whose primary focus is on the consequences of an event. Why clutter up the model with variables that are not of direct interest?” Indeed, although time-invariant variables are not *explicitly* controlled, they are *implicitly* controlled for. Moreover, regarding efficiency, Allison (p.192) maintained that the standard errors of fixed-effects models are only slightly larger than those of other estimators, so any “loss of precision seems tolerable when it come with potentially large reductions in bias.” Finally, however, he agrees that repeated observations across units are commonly large, so standard errors and test statistics can be biased. Insofar as the autocorrelation of predictors is attributable to unobserved individual differences, fixed-effects models do well. Yet, in some instances fixed-effects may not sufficiently correct for autocorrelation, which thereby contributes to biased standard errors. While Allison maintained that this is reason to consider other types of models, the current study maintains that the indicator of romantic dissolution is correlated with unobserved characteristics to an extent that should minimize significant bias in the model.

## Fixed Effects Negative Binomial Models

The present study employs fixed effects negative binomial models given that the outcome of interest is a non-linear, over-dispersed count variable that measures the number of offenses an individual committed in a given wave. Fixed effects Poisson models are an alternative analytic option but are not employed here. According to Allison (2009, p.61), “the appeal of the negative binomial model is that the estimated regression coefficients may be more efficient (less sampling variability), and the standard errors and test statistics may be more accurate than those produced by such empirical, after-the fact corrections, as the bootstrap of jackknife.” Considered together, the efficiency and precision noted above make the fixed effects Negative Binomial the preferred method for this study.

Despite the strengths of fixed effects negative binomial models, however, there is a shortcoming that has been well addressed in the literature. According to Allison and Waterman (2002, p.248), the “fixed effects negative binomial model proposed by Hausman, Hall, and Griliches (1984) is not a true fixed effects method.” That is, it does not control for all stable predictors as fixed effects intend (see Allison, 2009, p.62). The present study points to this shortcoming for purposes of transparency and to acknowledge the option of alternative modeling strategies that may serve as more true method of fixed effects (e.g. random effect negative binomial models, fixed effects poisson models, etc.).

## RESEARCH QUESTIONS

### Focus 1

The first focus of this study uses both the annual and monthly calendar data to test



the effect of romantic dissolution on offending in emerging adulthood. Recent work in this area determined that there is evidence of a negative effect of romantic dissolution on crime and substance use (Larson & Sweeten, 2012). However, that research did not employ a longitudinal design, and, more importantly, was unable to address the causal processes that may account for the dissolution effect. In addition, then, this section also assesses the potential influence of a variety of mechanisms (strain/negative emotion and peer influence/exposure) (see Laub & Sampson, 2003). In closing, while this chapter provides further understanding of how relationship dissolution may affect offending behavior, it also provides insight into the influence of various intervening mechanisms on relationship involvement, which has received little attention in the literature to date (see, however, Bersani & Doherty, 2013; Simons & Barr, forthcoming).

## Focus 2

The second focus of the current study also uses annual and monthly data to test the effect of romantic dissolution on different forms of offending in emerging adulthood. It aims to decipher whether the dissolution effect is stronger for particular crimes types than others. A recent body of literature has shown that individuals who are affected by an event such as relationship termination are likely to experience heightened levels of aggression (Leary & Springer, 2001; MacDonald & Leary, 2005), so it may be the case that romantic dissolution is more closely related to aggressive offending than income offending. In addition to examining whether romantic dissolution has varying effects on different offense types, the second focus also examines the extent to which

strain/negative emotion and peer influence/exposure mediate the effect of romantic dissolution on different offense types.

### Focus 3

The third focus of the present study is on the extent to which romantic relationship contexts and individual circumstances influence the extent to which romantic dissolution is associated with offending. Given the literature that has found the protective influence of romantic involvement to be contingent upon whether a romantic partner is antisocial (Capaldi et al., 2008; Simons et al., 2002), it logically follows that the effect of romantic dissolution may also depend on this and other relationship contexts and individual characteristics. The potential moderating factors that are of interest to the present study include cohabitation, having an antisocial romantic partner, experiencing physical and emotional forms of intimate partner victimization, and unemployment. It is hypothesized that these mechanisms will differentially affect the dissolution of a relationship given the different functions and characteristics that such relationships most often embody.

### CONCLUSION

The preceding sections make clear the interest of the current project. The construction of dependent and independent variables was explained, the analytic technique was reviewed, and the four components of this study were briefly explained. Each of the following results chapter first proceeds with a more complete overview of its theoretical focus, specific hypotheses, and the measurement and analytical decisions that

are made. Together, the various aims of this project will contextualize the effect of nonmarital romantic dissolution on offending in a fashion that is found nowhere else in the romance-crime literature. And in doing so, it will provide more insight into the pertinence of the various causal mechanisms that have been proposed in the past decade than any study in the extant literature.

## Chapter 4

### ROMANTIC DISSOLUTION AND OFFENDING REVISITED

#### STUDY OVERVIEW

It has become increasingly clear over the past decade that romantic involvement has clear implications for criminal behavior during the transition to adulthood (see McCarthy & Casey, 2008). While evidence of such effects has mounted, criminologists have largely ignored romantic transitions, particularly that of relationship dissolution. Efforts are underway to address this gap in the literature, however. A recent study by Halpern-Meekin and colleagues (2013) concerning the effect of “relationship churning” (otherwise known as on-again/off-again relationships) on physical and emotional violence highlights increasing interest in such transitions. In short, criminologists are beginning to recognize that involvement in a meaningful romantic relationship is distinct from the *exit out of* one, and that such changes are consequential for understanding offending behavior, especially during emerging adulthood (Arnett, 2004).

This study contributes to the growing conversation on the importance of relationship dissolution to understanding behavior by examining whether it increases offending. This study proceeds with three specific interests in mind. The first interest is determining whether there is in an effect of romantic dissolution on offending behavior. In line with two recent studies in this area (Halpern-Meekin et al., 2013; Larson & Sweeten, 2012), this study hypothesizes that the failure of a meaningful romantic relationship will disrupt the lives of at-risk youth and lead to heightened criminal behavior. Provided that relationship dissolution increases offending, the study’s second goal is to assess the extent to which two specific mechanisms, strain/negative emotion

(see Agnew, 1992) and influence and exposure to delinquent peers (see Warr, 1998), account for the effect. Theoretically, it is expected that these two mechanisms will mediate, at least in part, the dissolution-offending relationship. The third and final goal of this study is to determine whether the dissolution effect is more closely aligned with certain forms of offending, net of controls for the strain and peer mechanisms. In other words, is romantic dissolution more likely to increase aggressive offending than it is income-based forms of offending? Incorporation of these three goals into this study helps the criminological literature on non-marital relationships make a necessary and important progression.

#### ANALYTIC STRATEGY

The intent of this study is three-fold. First, it establishes the effect of romantic dissolution on within-individual change in offending during emerging adulthood. Second, it assesses the extent to which two mechanisms—strain/negative emotion and peer influence/exposure—reduce the effect of romantic dissolution and offending. Stated alternatively, it is interested in the extent to which romantic dissolution mediates the dissolution-offending association. The third and final goal of this study is to examine the relationship between romantic dissolution and various offense types. Specifically, it is interested in determining whether romantic dissolution is more strongly associated with aggressive offending than income-based offending.

To address these questions, fixed effects negative binomial models are employed. This analytic method serves as a rigorous approach because of its ability to control for and reduce the influence of unobserved time-invariant factors that are not measured in the

Pathways to Desistance Study. Any method that does not consider unobservables is bound to produce estimates that are biased. Furthermore, fixed effects negative binomial models take into consideration the highly correlated structure of panel data. Without controlling for this dependency, estimates are vulnerable to imprecision.

Three sets of fixed effects negative binomial models are estimates. The first set of models establishes the impact of romantic dissolution on offending, net of controls. The second set of models directs attention to the mediating influence of strain/negative emotion and peer influence/exposure. That is, it examines the extent to which changes in these two characteristics reduce the effect of romantic dissolution on crime. The third and final set of models assesses whether the effect of romantic dissolution differs across crime type, as well as the extent to which strain/negative emotion and peer influence/exposure affect those relationships. In the end, these three sets of models will provide insight into why and when romantic dissolution increases crime.

## SAMPLE

Construction of the final sample involved two steps. First, respondents were retained if they had valid offending variety scores. This reduced the overall sample from  $n = 1,354$  to  $n = 1,336$  and person-time observations from  $NT = 13,540$  to  $NT = 12,148$ . Next, person-time occasions were dropped when participants reported being married or engaged, given that the interest of this study is in nonmarital relationships. This step reduced the sample from  $n = 1,336$  to  $n = 1,334$  and the person-time observations from  $NT^1 = 12,148$  to  $NT = 11,778$ . In the end, this approach retained over 95 percent of the

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<sup>1</sup> NT refers to N (sample size) multiplied by T (number of years/waves)

person-time observations that included valid offending variety scores.

Following this sample selection procedure, this study included few missing observations for the time-varying covariates. In fact, only two measures, routine activities and negative emotionality, were missing more than 2 percent of their observations. To retain data, missing observations were imputed using the chained regression approach available within Stata. For the present study, a total of 40 imputed data sets were generated and the standard errors across those datasets are averaged when multivariate models are estimated. In essence, with imputed chained regression missing values are predicted using covariates that contain no missing values. Variables containing missing information are imputed one at a time so that their imputed values can then be utilized for subsequent variable imputations. For this study, imputation is used to generate forty datasets, each of which is then modeled and used to estimate a single set of standard errors for each model.

Kenward and Carpenter (2007) maintain that there are a number of notable advantages to multiple imputation practices like the one used here. First, “it can be applied very generally, to very large datasets with complex patterns of missingness among covariates” (p.214). The Pathways dataset is comprised of 10 waves in total for 1,354 youth so this particular benefit is evident. Second, “the imputation model may include variables not in the substantive model, which can lead to additional efficiency” (p.214). In other words, predictors that are not included in the model can contribute to the estimate of the missing data, making the predictions more precise and reliable. Even in light of these two benefits, however, Kenward and Carpenter (2007, p.214) advise that “however convenient, *no* method of analysis can be expected to provide an ‘automatic’

solution to the problem of missing data, and any approach used must be carefully considered in the context of the problem.” As such, efforts that make use of multiple-imputation would be well advised to use alternative methods such as listwise or pair-wise deletion and mean placement to examine the extent to which the estimates produced across these methods are comparable.

(Insert Table 1 about here)

## DEPENDENT VARIABLE

### Offending Variety

Given the various goals of this study, three offending variety measures are used. The benefits of offending variety scores are well established (see Hindelang et al., 1981; Hirschi, 1969; Sweeten, 2012). Most recently, Sweeten (p.554) proposed that variety scores are the “preferred method” of measuring individual criminality because they effectively nullify the disproportionate influence of minor, high-volume criminal acts. Accordingly, the first outcome variable used in the analysis is a 22-item measure of total offending variety score, which captures the total number of offenses that subjects engaged in during each wave.

These items were initially used to construct variety score proportions because, for some respondents, valid responses existed for fewer than the 22 total items. In these instances, variety score proportions were derived by dividing the number of endorsed items by the total number of acts with valid responses. Accordingly, all variety score proportions range from 0 to 1, with a potential score of 1 being reflective of involvement



in all offenses for which a youth had a valid response. For purposes of more meaningful interpretation, the variety score proportions were translated back into variety scores. To do so, total variety score proportions across all waves were multiplied by 22 and rounded to the nearest whole number.

Aggressive and income variety scores are modeled individually as well given present interest in whether the effect of romantic dissolution varies across offense type. Although there is no specific criminological theory that suggests there would be notable differences between crime types, a large literature within psychology indicates that romantic dissolution is strongly related to aggression. Fisher (2004), for example, discusses at length the experience of “abandonment rage” in which individuals who experience romantic loss become increasingly aggressive and violent following rejection by a romantic partner (see also Dutton, 2002). In line with this position, the present effort proposes that such a relationship could exist among this sample of at-risk youth, with dissolution being more strongly related to aggressive than income-based offending. Each of the variety scores captures the number of crimes in that a subject self-reported in each wave. For these measures, original variety score proportions were again translated into variety scores by multiplying each by 11, their denominator (i.e., total number of items that fall into each offense category), and rounding to the nearest whole number.

## INDEPENDENT VARIABLES

### Romantic Dissolution and Relationship Characteristics

The incidence of romantic dissolution is captured for each of the 10 waves modeled within this study. There are a variety of ways to measure the dissolution of

romantic relationship given the variables available in the Pathways data. One approach is simply to use the annual data to identify transitions from involved in a steady relationship at wave X to single at wave X + 1. Recent work that assessed the effect of romantic dissolution on delinquency used a similar strategy (Larson & Sweeten, 2012). Much can occur during 6- and 12-months periods, however, so referring only to bi-annual and annual measures potentially misses transitions into and out of (and perhaps back into again) relationships between waves.

The Pathways Study is well suited to overcome this particular shortcoming because it includes monthly data that were compiled using the life calendar approach (for more detail, see Roberts & Horney, 2011). Monthly data provide a rich opportunity to more precisely identify and estimate the influence of transitions out of a steady, meaningful romantic relationship. The romantic dissolution measure was constructed using the following steps. First, a set of 84 dissolution measures was constructed that identified the incidence of romantic dissolution at the monthly level. If a respondent went from involved in a steady, meaningful relationship one month to single the next, they were coded as having a relationship that dissolved. The second step involved summing the monthly romantic dissolution measures into an indicator that aligned with the 6- and 12-month variables. Here, the issue is that exposure time varies across individuals and waves. So, for instance, for *Johnny* wave 2 might have begun at month 5 and ended at month 11, whereas wave 2 for *Suzy* might have begun at month 4 and ended at month 8. To account for this variation in exposure time, a set of variables was constructed that indicated 1) the month at which a wave began and 2) the month at which a wave ended for each respondent. Using these measures, romantic dissolutions that occurred during the

months comprising a wave (e.g. months 5-11 for *Johnny* and months 4-8 for *Suzy*) were summed. Few respondents broke up more than once during any wave so the measures constructed using the monthly data were ultimately dichotomous. The third and final step involved taking the aforementioned measure and crosschecking it with the relationship status variables from the annual data. The majority of romantic dissolutions that occurred during a given wave were captured using the annual relationship measures, but, as expected, calling on the monthly data added a significant number of dissolution events for each wave. Thus, the annual romantic dissolution measure was recoded (0 to 1) if the measure from the monthly data indicated that dissolution occurred.

From this point, four specific relationship categories were constructed using the aforementioned dissolution measure and relationship status at each wave. The first category is no romantic dissolution-single, which captures individuals who were consistently single from one wave to the next. The second category is no romantic dissolution-steady, which captures participants who were consistently involved in a romantic relationship from one wave to the next. The third category is romantic dissolution-steady, which captures individuals who experienced the dissolution of their relationship but became romantically involved again during that wave. The fourth and final category is romantic dissolution-single, which captures participants who experienced romantic dissolution since their last interview but remained single thereafter. In line with previous work, understanding what happens following the dissolution of a relationship is particularly meaningful (Larson & Sweeten, 2012). Furthermore, it is noteworthy that the Pathways Study does not classify casual dating into the same category as steady, meaningful romantic involvement. This is an important distinction to

make, as moving from involved in casual dating to not dating is unlikely to affect behavior in the same fashion as moving from steadily involved in a meaningful relationship to single. There is, however, no objective measure of what exactly a meaningful romantic relationship is, especially among adolescents. Relatedly, there is bound to be gender differences in adolescents' and emerging adults' definition and differentiation of meaningful romantic involvement (Furman & Hand, 2006).

In addition to relationship status, three other relationship-specific variables are included in the analyses. The importance of marriage and the likelihood of one day having a good marriage are used as proxies for relationship investment and outlook, and are measured with scales ranging from 0 to 5. Further, the analyses include a dichotomous measure of whether respondents cohabited with their romantic partner during the previous wave.

### Strain/Negative Emotionality

In addition to establishing the effect of romantic instability on crime in its various forms, this study also examines the mediating influence of two mechanisms, one of which is strain/negative emotionality. The Pathways data offer numerous ways to measure negative emotionality. The three Brief Symptom Inventory (BSI) measures are one option. These measures capture the presence of various negative emotional traits, including somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobia, paranoia, and psychoticism. For the purposes of this study, the measures of depression, anxiety, and hostility are most pertinent given their association with the incidence of romantic dissolution (Chung et al., 2003; Sprecher et al., 1998;.

Importantly, while various symptom sub-scales have questionable discriminant validity (see Benishek et al., 1998), the depression, anxiety, and hostility sub-scales are valid and of no concern when considered independently. Accordingly, the average of these three specific measures was combined into an additive scale of negative emotionality, which ranges from 0 to 4, with higher scores being reflective of more negative emotions. Importantly, the preferred measure of strain would give direct attention to the emotional experience that a strain elicits (in this case romantic dissolution). The present measure, however, is not situational and thus does not provide such specificity. Consequently, it is likely to be influenced by the stable, trait-based nature of negative emotionality (see Mazerolle et al., 2002; Moon et al., 2009)

#### Antisocial Peer Influence/Exposure

Given the findings of Warr (1998), who determined that the effect of romantic involvement operated through changes in exposure to antisocial peers, this study takes the position that the same likely applies to the dissolution of a relationship. That is, the transition from romantically involved to single is expected to be followed by both changes in routine activities and an increase in time spent with delinquent peers. Such changes are expected to mediate, at least in part, the effect of romantic dissolution on offending.

The first of the four variables, routine activities, assesses the regularity of unstructured socializing (see Osgood et al., 1996). Respondents were asked about how often they rode around in a car just for fun, got together with friends informally, went to parties, and went out for fun and recreation using the following 5-point Likert scale: 1)

Never, 2) A few times a year, 3) Once or twice a months, 4) At least once a week, and 5) Almost every day. Three additional measures are used to capture the potential influence of changes in delinquent peer exposure and influence. The first measure is of peer antisocial behavior, which indicates the extent to which youths' close friends engaged in crime during a wave using a subset of 12 behavioral items from the Rochester Youth Study (see Thornberry et al., 1994). Each of the items was measured using a 5-point Likert scale: 1) None of them, 2) Very few of them, 3) Some of them, 4) Most of them, and 5) All of them. The 12 behaviors that the items assess include how many of the respondent's friends have destroyed property, hit or threatened to hit someone, sold drugs, gotten drunk once in a while, gotten high on drugs, carried knife or gun, owned a gun, gotten into a physical fight, gotten hurt in a fight, stole something worth more than \$100, stole a motor vehicle, or committed burglary. The second peer variable measures the extent of peer antisocial influence. This measure is a mean of seven items that capture how many of the respondent's friends have suggested that they go out drinking with them, have to get drunk or high to have a good time, or should sell drugs, steal something, hit or beat someone up, or carry a weapon. These items are measured using the same 5-point Likert scale that ranges from "None of them" to "All of them." The third and final peer-specific variable is number of close friends, which effectively captures the size of a respondent's friend network.

## CONTROL VARIABLES

To effectively reduce bias in estimates it is necessary to control for a range of potentially confounding variables associated with either romantic dissolution or crime.

Because the entire Pathways sample is modeled in the present study, relationship-specific variables (e.g. relationship quality) are not controlled for, as those who are single do not provide such information. Nevertheless, this study refers to a set of control variables that fall into five categories: criminal justice system involvement, demographics, psychosocial adjustment, rational choice, and social support.

Two variables indicating involvement with the criminal justice system at each wave are controlled: proportion of time institutionalized and whether a respondent is on probation. Importantly, offending can still take place when respondents reside in a secure facility, but only some of the acts that contribute to the variety scores are possible in such settings, so inclusion of the measure into multivariate analyses is necessary (see Piquero et al., 2001).

A host of important time-varying demographic factors also are controlled for. These variables include age at each interview, current employment, current educational/vocational enrollment, gang membership, and whether the respondents have any children. The employment, education, gang membership, and children measures are dichotomous (1 = Yes, 0 = No).

Another set of measures focuses attention to the psychosocial characteristics of temperance, psychosocial maturity, and future orientation (see Cauffman & Woolard, 1999; Gottfredson & Hirschi, 1990; Monahan et al., 2009). Temperance is measured by taking the mean of 8 items from the impulse control sub-scale<sup>2</sup> and 7 items from the

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<sup>2</sup> The items for the impulse control sub-scale include: 1) I'm the kind of person who will try anything once, even if it's not that safe (reverse coded); 2) I should try harder to control myself when I'm having fun (reverse coded); 3) I do things without giving them enough thought (reverse coded); 4) I like to do new and different things that many people would consider weird or not really safe (reverse coded); 5) I become 'wild and crazy' and do things other people might not like (reverse coded); 6) When I'm doing something

suppression of aggression sub-scale<sup>3</sup>, both of which are measured via a 5-point Likert scale ranging from 1 (False) to 5 (True). Psychosocial maturity is measured using the mean of 30 items that tap into three specific dimensions: Self-Reliance<sup>4</sup> (e.g. Luck decides most things that happen to me), Identity<sup>5</sup> (e.g. I can't really say what my interests are), and Work Orientation<sup>6</sup> (e.g. I find it hard to stick to anything that takes time to do). All thirty of the items used for this inventory were measured using a 4-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." Future outlook, which is an inventory developed by Cauffman and Woolard (1999), is scored using the mean of eight items with a scale ranging from 1 (never true) to 4 (always true). The eight items ask respondents whether they 1) will keep working at difficult, boring tasks if they know it

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fun (like partying or acting silly), I get too carried away and go too far (reverse coded); 7) I say the first thing that comes into my mind without thinking enough about it (reverse coded); 8) I stop and think things through before I act.

<sup>3</sup> The items for the suppression of aggression sub-scale include: 1) People who get me angry better watch out (reverse coded); 2) If someone tries to hurt me, I make sure I get even with them (reverse coded); 3) If someone does something I really don't like, I yell at them about it; 4) I pick on people I don't like (reverse coded); 5) I lose my temper and 'let people have it' when I'm angry; 6) I say something mean to someone who has upset me (reverse coded); 7) When someone tries to start a fight with me, I fight back (reverse coded).

<sup>4</sup> The items for the self-reliance subscale, which are all reverse coded, include: 1) I don't like to tell my ideas about God when I know others disagree with me; 2) It's not very practical to decide what kind of job you want because that depends so much on other people; 3) If you haven't been chosen as the leader, you shouldn't suggest how things should be done; 4) In a group I prefer to let other people make the decisions; 5) You can't be expected to make a success of yourself if you had a bad childhood; 6) Luck decides most things that happen to me; 7) The main reason I'm not more successful is that I have bad luck; 8) When things go well for me, it is usually not because of anything I myself actually did; 9) I feel very uncomfortable if I disagree with what my friends think; 10) it is best to agree with others, rather than say what you really think, if it will keep the peace.

<sup>5</sup> The items for the identity subscale, which are all reverse coded, include: 1) I'm the sort of person who can't do anything really well; 2) I can't really say what my interests are; 3) I can't think of any kind of job that I would like a lot; 4) My life is pretty empty; 5) I can't seem to keep people as friends for very long; 6) I act like something I'm not a lot of the time; 7) I never know what I am going to do next; 8) I change the way I feel and act so often that I sometimes wonder who the "real" me is; 9) Nobody knows what I'm really like; 10) I am not really accepted and liked.

<sup>6</sup> The items for the identity subscale, which are all reverse coded, include: 1) Hard work is never fun; 2) If something more interesting comes along, I will usually stop any work I'm doing; 3) I find it hard to stick to anything that takes a long time to do; 4) I hate to admit it, but I give up on my work when things go wrong; 5) I often don't get my most important work done because I've spent too much time on other work; 6) I seldom get behind on my work; 7) I tend to go from one thing to another before finishing any one of them; 8) I often don't finish work that I start; 9) I often leave my homework unfinished if there are a lot of good TV shows on that evening; 10) No one should expect you to do work that you don't like.



will help them ahead later, 2) think about how things might be in the future, 3) make lists of things to do, 4) weigh the good versus the bad, 5) will give up their happiness to get what they want in the future, 6) would rather save money for a rainy day than spend it on something fun, 7) can see their life 10 years from now, and 8) think about the consequences before they do something.

Finally, two relevant variables are included as control variables within all the multivariate models: social costs of crime (Nagin & Paternoster, 1994; see also Williams & Hawkins, 1986) and social support (see Cullen, 1994; Cullen, Colvin, & Vander Ven, 2006). Social costs of crime is the mean of 6 items that measure the extent to which participants believe there are social consequences to crime involvement. Using a 5 point Likert scale, ranging from “Very Unlikely” to “Very Likely,” respondents were asked how likely it is that breaking the law would result in suspension from school, loss of respect from close friends, loss of respect from family, loss of respect from neighbors, loss of respect from romantic partner, and making it harder to find a job. Additionally, social support captures the number of adults that respondents have relationships with and to whom they have access.

## RESULTS

### Summary statistics

Table 1 presents the means for all of the measures, as well as between-group differences by romantic dissolution. Approximately 81 percent of the sample experienced at least one dissolution event across the 7 years of data collection. Over the 11,778 person-year combinations, approximately 25 percent included the dissolution of a

relationship. That is, on average, each wave saw approximately one-fourth of participants experience the dissolution of a relationship they viewed as meaningful.

(Insert Table 2 about here)

Table 1 shows that there are considerable differences in total offending variety by romantic dissolution. Respondents who experienced the dissolution of a relationship during a given wave had an average total variety score of 1.74 compared to 1.20 for those who did not experience romantic dissolution ( $p < .001$ ). At the bivariate level, then, total variety scores were 45 percent greater for individuals who experienced the end of a relationship. A similar pattern holds for both the aggressive and income variety scores. Those who had a relationship dissolve displayed mean aggressive variety scores of .78 compared to .58 for those who did not have a relationship dissolve ( $p < .001$ ). The difference in income variety scores was also impressive (.74 versus .48;  $p < .001$ ).

There are significant differences in relationship-specific characteristics by the incidence of romantic dissolution. As expected, relationship dissolution is less likely among respondents who are cohabiting (8 percent versus 17 percent;  $p < .001$ ). Furthermore, individuals who experienced romantic dissolution were less likely to view marriage as important (4.04 vs. 4.24;  $p < .001$ ) and to believe that they would eventually marry (3.38 vs. 3.61;  $p < .001$ ).

Significant differences in the strain/negative emotionality and peer-specific measures of interest also were found. The negative emotionality index, which is the mean score of the depression, anxiety, and hostility scales, is significantly higher among

individuals who experienced romantic dissolution (.47 vs. .41;  $p < .001$ ). Moreover, those who had a relationship dissolve engaged in more unstructured routine activities (3.22 vs. 3.01,  $p < .001$ ), had more delinquent peers (1.83 vs. 1.69,  $p < .001$ ), and experienced greater antisocial influence (1.52 vs. 1.43,  $p < .001$ ).

Finally, several other differences exist between the groups. Respondents who broke up served less time in a facility during waves in which they broke up. Clearly, those who spend more time on the street are more likely to have various romantic experiences. Relationship dissolution is related to a slightly greater likelihood of having a child. On the other hand, those who broke up are less likely to be employed and enrolled in school, and also have lower scores on temperance (i.e. the combined measure of impulse control and suppression of aggression) and future orientation.

In sum, it appears that romantic dissolution is associated with significant differences in various life domains among this sample of at-risk youth. Of course, correlation does not equate to causation, so further examination of the dissolution effect in a multivariate, longitudinal context is required. The remainder of the study focuses its attention to these analyses, with special attention paid to: 1) the mediating influence of the proposed mechanisms and 2) whether romantic dissolution is more closely related to certain forms of offending behavior.

### Total Offending Variety

Table 2 below presents the results of a set of fixed effects negative binomial models predicting total offending variety. The first model examines relationship context

along with the full set of control variables, but without the strain and peer influence variables. The relationship status variable is categorical and the reference category is no romantic dissolution-single. In line with theoretical expectations, the incidence of romantic dissolution is strongly related to offending. The estimates presented within the table are expressed here forward via Incidence Rate Ratios (RRS). The IRRs are derived post-estimation by exponentiating each coefficient. In essence, the IRRs are interpreted like simple odds ratios by subtracting 1 from the IRR. For instance, if an IRR is 1.5, that reflects a 50 percent increase for the unit of interest.

(Insert Table 3 about here)

Romantic dissolution followed by remaining single is followed by a 27 percent increase in total offending variety scores, holding all predictors at their mean. Further, those who were romantically involved but experienced a romantic dissolution exhibited the strongest increase in crime, with a 42 percent increase in total offending variety when in such a state ( $p < .001$ ). Lastly, rather than being a protective influence, steady romantic involvement without disruption increases total offending variety scores by 19 percent.

The second model assesses the contribution of strain/negative emotion to the model and, more importantly, whether it reduces the effect of romantic dissolution on crime. Contrary to expectations, the strain/negative emotion index does not account for a substantial reduction in the dissolution effect, regardless of post-dissolution relationship context. All three of the relationship status measures retain their significance ( $p < .001$ ) and the coefficients are reduced only slightly.

The third model assesses the mediating influence of the peer-specific measures. All four of these measures are significant ( $p < .001$ ) and three exhibit particularly strong effects on crime. A one-unit increase in unstructured routine activities is associated with a 15 percent increase in the total offending variety score. Further, a one-unit increase in peer antisocial behavior and peer antisocial influence is followed by a 39 percent increase and 14 percent increase, respectively, in offending variety scores. Together, these peer-specific measures account for a notable reduction in the criminogenic effect of romantic dissolution. Indeed, the romantic dissolution-steady and romantic dissolution-single coefficients are reduced by 20 percent and 29 percent, respectively, when controlling for such within-individual change.

The fourth and final model in the table displays results from the full model, which includes both the strain/negative emotionality and peer-specific measures. The relationship status coefficients here differ little from those in the peer-specific model given that negative emotionality mediated little of the dissolution effect. In the end, the effect of romantic dissolution both for those who entered (or reentered) a relationship and those who remained single following romantic dissolution was reduced substantially but not accounted for entirely by these specific mechanisms. The following sections examine the offense-specific models to examine whether variation exists in the effect of romantic dissolution and the contribution of these various mechanisms.

#### Aggressive Offending Variety

Table 4 displays the results of the fixed effects negative binomial models that predict aggressive offending variety. Again, the limited, controls-only model shows

relationship status is particularly meaningful to offending intensity. Those who were steadily involved but broke up during the previous wave have aggressive offending scores that are approximately 25 percent higher than when single, and those who broke up and remained single had scores that are 19 percent higher than in waves when they are single. And again, steady relationship involvement is shown to correspond with within-individual increases in aggressive offending variety scores.

(Insert Table 4 about here)

In line with the strain/negative emotion model presented for total offending variety, changes in negative emotion reduce the dissolution effect slightly, but do have a positive and significant effect on aggressive offending overall. Again, coefficients for the romantic dissolution-specific relationship statuses are reduced marginally. In fact, only the romantic dissolution-steady coefficient changes at all; the romantic dissolution-single coefficient remains unchanged in light of the negative emotion index. Furthermore, the story that unfolds in the peer-specific model is similar to that identified in its total offending variety counterpart. Together, the four peer-specific measures reduce the effect of romantic dissolution on crime quite notably. Individuals who broke up but were steadily involved committed 16 percent more aggressive crimes than in waves where they were steadily single; those who broke up but remained unattached committed 11 percent more aggressive crimes relative to waves in which they were not romantically involved. When controlling for the four measures of peer influence and exposure, the magnitude of the romantic dissolution-steady and romantic dissolution-single coefficients was reduced

by 32 percent and 41 percent, respectively. Thus, changes in peer influence and exposure account for a significant reduction in the dissolution coefficients.

The fourth and final model shows the results of the full model, inclusive of controls, strain, and peer measures. Both dissolution-specific relationship statuses retain their statistical significance, with romantic dissolution-steady having the strongest effect on aggressive offending. Ultimately, waves in which respondents had a relationship dissolve but entered back into a steady romantic relationship were associated with the greatest level of aggressive offending, although having a relationship end and remaining single was comparable. Regardless of the post-dissolution transition, romantic dissolution was associated with at least an 11 percent within-individual increase in aggressive offenses, relative to waves in which respondents were persistently single.

#### Income Offending Variety

The third and final set of fixed effects negative binomial models focus attention to income-based offending variety. In the controls-only model, all three relationship statuses are again statistically significant, with income offending greatest in waves that see individuals break up but remain romantically involved. Romantic dissolution-steady is associated with a 56 percent increase in income offenses relative to being single, while those who experience romantic dissolution but do not enter a new relationship commit 32 percent more income offenses than in waves in which they are steadily single.

(Insert Table 5 about here)

The second and third models move to an assessment of the mediating influence of strain/negative emotion and peer influence and exposure. Inclusion of the negative emotion index reduces the magnitude of the dissolution-steady effect ( $b = .44, p < .001$  to  $b = .41, p < .001$ ) but the dissolution-single coefficient is not at all affected. However, accounting for within-individual changes in peer influence and exposure again reduces the direct effect of romantic dissolution on income offending. In waves in which respondents broke up but are again romantically involved, they commit 43 percent more income-based offenses. When respondents experience romantic dissolution but remain single, they commit 20 percent more income offenses compared to when they are steadily single. Finally, the coefficients of these two dissolution effects are much smaller in the face of peer measures. Indeed, controlling for peer influence and exposure reduces the dissolution-steady coefficient by 18 percent and the dissolution-single coefficient by 36 percent. The findings of the full model show results that essentially are in line with the peer-specific model due to the marginal reduction that occurs with the addition of the strain/negative emotion index into the models.

#### Aggressive and Income Offending Comparison

Table 5 displays the relationship-specific coefficients for the aggressive and income-based offending variety scores. In terms of statistical significance, romantic dissolution is more strongly related to the income-based offending, as all coefficients across the four models are significant at the  $p < .001$  level. Although romantic dissolution has an impressive relationship with both offense types, it is more closely related to income-based offending. First, the magnitude of both dissolution coefficients is at least



double that in the aggressive offending models. In terms of percentages, the full models indicate that income offenses increase by 42 percent in romantic dissolution-steady waves and by 20 percent in romantic dissolution-single waves, whereas aggressive offenses only increase by 14 and 11 percent, respectively, in such waves. Nevertheless, the results presented in this study show that romantic dissolution not only increases aggressive and income offending, but that is one of the stronger predictors across models.

(Insert Table 6 about here)

## SUMMARY

A number of important conclusions were arrived at in this study. First, and foremost, romantic dissolution was found to increase offending throughout emerging adulthood. This finding is in line with previous work that used a nationally representative sample that was not particularly criminogenic (Larson & Sweeten, 2012). Second, results suggest that much of the dissolution effect was a consequence of within-individual changes in peer influence an exposure. In essence, relationship dissolution is followed by offending due partly to increased unstructured routine activities and greater susceptibility to peer influence. Third, while the effect of romantic dissolution is robust to various forms of offending, it appears more strongly related to income-based offending. This finding will be addressed in the discussion section as it has clear implications for policy. The fourth and final finding presented in this study, which was not originally of interest, is that the effect of romantic dissolution is strongest when it is followed by relationship involvement (relative to remaining single). A recent study by Halpern-Meekin, Manning,

Giordano, and Longmore (2013) provides insight into why this is likely the case. It is probable that these are individuals who are involved in relationships that are particularly unstable and volatile, which Halpern-Meehin et al. (2013) and others refer to “relationship churners.” Such instability and volatility may affect crime for various reasons. This finding will be revisited in the discussion section to more effectively elucidate the causes and consequences of such relationships.

## Chapter 5

# CONTEXTUALIZING THE IMPACT OF ROMANTIC DISSOLUTION ON OFFENDING

### STUDY OVERVIEW

The lives of emerging adults differ in numerous ways, and such variation undoubtedly applies to the nature of the romantic partnerships in which they are involved (Arnett, 2000, 2004). For example, while some young men and women are steadily romantically involved yet live separately, others reside with their romantic partner. Not all cohabiting relationships take the same form either. Some may arise as a precursor to marriage, while others may develop for financial reasons (Arnett, 2004). Romantic relationships can differ in other important ways as well, with intimate partner violence plaguing some relationships but never touching others (Black et al., 2011). There are also relationships that do not involve violence but that are antisocial and see romantic partners involved in criminal behavior (see Capaldi et al., 2008; Meeus et al., 2004; Simons et al., 2002). Finally, there are some partnerships in which one or both individuals are not legitimately employed, which will likely affect the dynamics of that romantic partnership (see Smock & Manning, 1997).

It is plausible that these relationship characteristics or individual circumstances influence the impact of romantic dissolution on offending during emerging adulthood. This study contributes to the sparse but growing literature on romantic dissolution and crime by testing how various relationships characteristics moderate this relationship. Specifically, the intention is to understand whether and in what ways various “contexts” moderate romantic dissolution’s association with offending among at-risk emerging

adults. It is possible that the dissolution of a relationship may lead to offending in some circumstances but reduce or not affect offending in others. In the end, this study will serve to contextualize the impact of romantic dissolution on offending.

## ANALYTIC STRATEGY

This study aims to understand within-individual variation in offending and how various relationship and individual factors moderate romantic dissolution's effect. Importantly, romantic dissolution, like marriage and involvement in various other forms of romantic relationships, does not occur entirely at random. Instead, there are stable yet unobserved individual-level characteristics associated with the incidence of romantic dissolution. Failure to control for these characteristics will inevitably result in biased estimates so it is essential to mitigate their influence as best as possible. An impressive variety of individual-level factors are measured in the Pathways Study, but, like any dataset, there remain potentially meaningful characteristics that are not captured. As such, fixed effects negative binomial models are utilized because they serve as a rigorous analytic method that will account for the stable unobservables that are of issue in studies that use panel data.

A total of 6 fixed effects negative binomial models are estimated in the present study. The first of these models assesses whether romantic dissolution has a direct effect on offending variety, net of controls for strain/negative emotion, peer influence/exposure, justice system involvement, demographic characteristics, psychosocial variables, and social support. Importantly, if romantic dissolution does not exhibit a direct effect in the full model, the interactive models remain an important next step because it may be that

the various contexts of interest are masking the influence of romantic dissolution on offending.

Following the full model, a set of 5 additional models is run to assess the extent to which the following variables moderate the effect of romantic dissolution on crime: cohabitation, having an antisocial romantic partner, experiencing physical intimate partner violence, experiencing emotional intimate partner violence, and being unemployed. If the effect of romantic dissolution on crime changes when interacted with the above variables, that would inform us that certain contexts and circumstances exacerbate or reduce the relationship between romantic dissolution for crime.

## SAMPLE

The present study refers to data from waves 7 to 10 of the Pathways Study. Focusing on these waves and retaining individuals with non-missing total offending variety scores reduces the sample from  $n = 1,354$  to  $n = 1,269$  and person-time occasions from  $NT^7 = 5,416$  to  $NT = 4,705$ . Additionally, given this study's specific interest in nonmarital dating and cohabitive relationships, the next step was dropping person-time occasions in which respondents reported being married. This reduced the sample from  $n = 1,260$  to  $n = 1,233$  and person-time observations from  $NT = 4,705$  to  $NT = 4,407$ . Restricting the full sample in these two ways reduced the total number of observations in this study by only 13 percent, which is little more than the general attrition that affects these later waves of collection.

Overall, the time-varying covariates in this study are missing relatively few

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<sup>7</sup> NT is the number of subjects (N) multiplied by number of wave (T)

observations. The variables that do have a significant number of missing cases include measures of strain/negative emotionality and routine activities. These measures are missing 31 percent and 18 percent of their observations, respectively, in the waves examined for this study. Of the remaining time-varying covariates, none is missing more than 2 percent of its observations. Stata's chained regression approach to imputation was utilized to address the missing data across all of the time-varying covariates (see Royston 2007, 2009).

## DEPENDENT VARIABLE

### Offending Variety

This study uses a crime variety score that captures respondents' commission of 22 aggressive and income-based offenses. The 22 offenses that comprise the total offending variety score include the following: destroyed or damaged property, forced someone to have sex, killed someone, shot someone, shot at someone, attacked and harmed someone, fought, threatened/attacked someone as part of a gang, purposely set property on fire, took something by force with weapon, took something by force without weapon, broke into a building to steal, stole something from a store, bought, receive or sold stolen objects, used checks or credit illegally, stole a vehicle, sold marijuana, sold other illicit drugs, carjacked someone, drove drunk or high, paid for sex, or carried a gun.

Importantly, responses for these 22 offenses were originally measures as variety score proportions due to some respondents having fewer than 22 valid responses. The variety score proportions ranged from 0 to 1, with higher scores being reflective of respondents having committed more offenses. To allow for more intuitive and substantive

interpretation of the results in this chapter, the total offending variety score proportions were transformed back into variety scores by multiplying the proportions by 22 and rounding to the nearest whole number.

## INDEPENDENT VARIABLES

### Romantic dissolution

The focal independent variable in this study is romantic dissolution. This measure captures the incidence of romantic dissolution across the 4 waves used in this study. To identify the dissolution of a romantic relationship, attention is paid to changes in reported relationship status across consecutive waves, which is in line with previous efforts in this area (Larson & Sweeten, 2012). There are two ways to capture romantic dissolution across waves. First, if a respondent reports being involved in a romantic relationship at wave X but reports being single at wave X + 1, then that individual is coded as having experienced romantic dissolution. Second, romantic dissolution is captured when a respondent reports being single at wave X and wave X +1 but reports having been involved in a romantic relationship at some point during wave X + 1. This measure of romantic dissolution is dichotomous, with a score of 1 indicating romantic dissolution and 0 reflecting no incident of romantic dissolution. Importantly, this study does not identify those individuals who experience romantic dissolution but consequently enter back into the same or new relationship during the same wave. This is an important distinction to make, but unfortunately it is a consideration that cannot be made here if relationship specific characteristics are examined. This is because the Pathways Study only measures characteristics of respondents' most recent romantic relationship. If they

had a relationship dissolve during a given wave but then entered back into a romantic relationship, the characteristics of the dissolved relationship cannot be assessed because only characteristics of the new relationship are measured. Respondents could have entered back into the same relationship but there is no sound way to arrive at such a determination.

The following section highlights the moderating factors of interest in this study: cohabitation, having an antisocial romantic partner, physical intimate partner victimization, emotional intimate partner victimization, and unemployment. Each of these measures is interacted with romantic dissolution to determine whether dissolution's effect changes under certain conditions. In regard to timing, measurement of each of these factors occurs in the same wave in which a dissolution event occurred. For example, if an individual is determined to have had a relationship dissolve during Wave X, then they will have relationship characteristics available for that relationship. Therefore, even if individuals do not report that they are currently involved in a romantic relationship during a given wave, an alternative measure, "any romantic involvement," is used to capture whether they were romantically involved at any point. If in fact they were, they were also asked about the characteristics of that romantic relationship.

### Cohabitation

Whether or not romantically involved subjects are living together is a focal consideration of this study. A dichotomous measure is used to capture respondents who reported living with a romantic partner at any point during the last twelve months. Here, 0 indicates that respondents had not lived with a romantic partner and 1 indicates that



they had. Examining whether cohabitive relationships moderate the effect of dissolution on offending is necessary for a number of reasons. First, prior research has shown that nonmarital cohabitation affects criminal behavior in ways that differ from other relationship forms (see Horney et al., 1995; Lonardo et al., 2010; Sampson et al., 2006). Second, while cohabitation does not always indicate relationship commitment or quality (Stanley et al., 2004), it can have strong economic underpinnings that may cause relationship dissolution to be particularly criminogenic (Arnett, 2004; Smock & Manning, 1997), especially when considered along with research that suggests cohabitation is more prevalent among individuals who have unstable or erratic employment histories (e.g. Clarkberg, 1999). If cohabitation serves as a financial crutch for an individual, it may be that the end of such relationships may increase or inspire involvement in income-based offending.

### Antisocial Partnership

This study also considers the antisocial behavior of romantic partners given a growing literature that suggests the effect of romantic involvement on offending is dependent upon the antisocial nature of a romantic partnership (Simons et al., 2002; Haynie et al., 2005; Rhule-Louie & McMahon, 2007; van Schellen et al., 2012; Smith et al., 2012). This body of work largely indicates that antisocial romantic relationships do not reduce offending but instead intensify it or allow it to persist. Incorporating these findings into the present study is essential from a theoretical standpoint. A recent study by Smith and colleagues (2012) provides insight into how these findings may unfold for relationships that dissolve. Examining problem-drinking among a cohort of divorced

women, they arrived at two conclusions: 1) divorce was followed by increased problem-drinking for those who were married to a non-problem drinker and 2) divorce was followed by a reduction in problem-drinking for those who were married to a problem-drinker. It may be that the dissolution of a nonmarital relationship impacts offending in a similar fashion. That is, romantic dissolution may increase offending among individuals who are involved with prosocial others but decrease offending for those who are involved in antisocial partnerships. At the same time, however, recent work by Giordano and colleagues (2010) found the romantic relationships of delinquents were not “cold and brittle” as originally hypothesized by Hirschi (1969), but essentially the same as the relationships of non-delinquents in terms of investment, commitment, and quality. If that is the case, the dissolution of an antisocial partnership may still result in an increase of offending.

A dichotomous measure is used to capture involvement with an antisocial partner. Romantically involved participants were coded as involved in an antisocial partnership if they reported that their partner had committed any of the following acts: purposely destroyed property that was not his/hers, hit or threatened to hit someone, sold drugs, got drunk, got high, carried a knife, carried a gun, owned a gun, got into a fight, got hurt in a fight, stole something worth more than \$100, stolen a vehicle, or attempted burglary. They were not considered to be involved in an antisocial romantic relationship if their partner did not commit any of the aforementioned acts.

### Intimate Partner Violence

Another crucial independent variable in this study is intimate partner violence.

Intimate partner violence is a relatively common event, with over 36 percent of females and 28 percent of males in the United States experiencing rape, physical violence, and/or stalking by their romantic partner in their lifetime (Black et al., 2011). Importantly, intimate partner violence is associated with other relationship dynamics that differ from those of non-violent relationships. For instance, Giordano and colleagues (2010) found that violent relationships are characterized by control, conflict, and infidelity. They also found that violent relationships displayed higher levels of instrumental support but were no different from non-violent partnerships in terms of overall emotional investment and duration. Thus while more conflicted than non-violent relationships, there are important similarities (e.g. investment), which partly explains why ending violent relationships, especially for women, is not as common, or simple, as would be expected (see Katz, Tirone, & Schukrafft, 2012; Kim & Gray, 2008). Moreover, research also shows that there are emotional and physical consequences of experiencing intimate partner violence, including depression, the onset of mental illness, and substance use (Coker et al., 2000, 2002), which can work together to increase crime (e.g. Beaulieu & Messner, 2010; Wiesner, Kim, & Capaldi, 2005).

Given these consequences, the present study examines whether the effect of romantic dissolution at all depends upon the incidence of intimate partner victimization. To do so, two types of intimate partner violence are examined in this study: physical and emotional. First, physical victimization is a measure of whether a respondent experienced any of the following instances of physical violence: Has your partner pushed, grabbed, shoved, slapped, or shaken you?; Has your partner punched, choked, strangled, kicked, or bitten you?; Has your partner thrown an object at you or tried to hit you with an object?;

Has your partner threatened you with a knife or gun?; Has your partner ever shot at or stabbed you?; Have you passed out from being hit by your partner?; Have you had broken bones from being hit by your partner?; Have you needed to see a doctor or go to an emergency room because of a fight with your partner? This measure is dichotomous, with 1 reflecting physical victimization and 0 indicating no physical victimization.

Second, emotional victimization measures whether a respondent experienced any of the following acts of emotional violence: Has your partner tried to stop you from having contact with family, friends or co-workers?; Has your partner become angry (e.g., yelled, gotten real upset) when you disagreed with his or her point of view?; Has your partner damaged, destroyed, hid or thrown out any of your clothes or possessions?; Has your partner locked you out of the house?; Has your partner insulted or shamed you in front of others?; Has your partner damaged or destroyed any other property when angry with you?; Has your partner threatened to leave you?; Has your partner called you stupid, fat or ugly?; Has your partner tried to stop you from working or studying? This measure is dichotomous, with 1 indicating emotional victimization and 0 reflecting no emotional victimization.

## Employment

The fifth and final independent variable in this study is employment status. Employment is well documented as a factor that reduces offending and contributes to desistance (Sampson & Laub, 1990; Uggen, 2000), while unemployment is known to increase involvement in crimes that can help address financial need (Farrington et al., 1986). Important to the current study, employment status is also associated with

cohabitation: those who have an unstable employment history, as offenders often do (Petersilia, 2009), are more likely to be involved in such relationships (Sassler & McNally, 2003; Wu & Pollard, 2000). As such, individuals who are unemployed and experience the dissolution of a cohabiting relationship may be at increased risk of offending due to the financial benefits that ended with their relationship. Alternatively, however, if they are employed and their romantic partner is unemployed, the dissolution of a romantic relationship somehow may result in a reduction in financial strain that reduces the likelihood of offending.

Accordingly, this study captures employment status with a measure that asks subjects whether they were employed at the time of their interview. They are coded as 1 if they reported current full or part-time employment and 0 if they reported no current employment at all. This measure of employment allows for a time-ordered assessment of subjects' financial situations following the dissolution of a romantic relationship, making it preferable to the measure of any employment since the last interview.

## CONTROL VARIABLES

In addition to the independent variables discussed previously, a host of control variables also are included within the models presented in this study. These variables fall into the following categories: justice system involvement, exposure time, demographics, mechanisms, psychosocial measures, rational choice, and social support. The next section highlights these variables and justifies their inclusion in the current analyses.

The first set of variables falls under the umbrella of justice system involvement. The two variables in this set include the proportion of time institutionalized and

probation. Proportion of time institutionalized ranges from a low of 0 to a high of 1, with the latter reflecting institutionalization for an entire wave. Controlling for the proportion of a wave that a respondent was institutionalized accounts for the fact that there are fewer opportunities for and incidents of offending in secure facilities (Piquero et al., 2001). According to Piquero and colleagues, (p.69), “such adjustments may...provide us with more informative estimates of how criminal activity changes over the life span.” In addition to exposure time, a self-reported measure of probation is included in this study, which serves as a measure of formal social control and allows for examination of whether such sanctions reduce self-reported offending. This measure is coded as 1 if respondents reported being on probation and a 0 if they reported no probation. Finally, exposure time is another important variable included within this study and is measured by the number of months that elapse between two consecutive interviews. There exists wide variation in the total number of months between within and across individuals, which is associated with offending variety scores, controlling for this factor is necessary.

A host of demographic variables are also controlled for in this study. The first demographic control is age, which is measured continuously. Education is also controlled for in this study. Respondents were asked if they were currently enrolled in a school or a vocational program at each interview. Those who were enrolled in school or a vocational program were coded as 1 and those who were not enrolled were coded as 0. Respondents were also asked if they had any biological children, with 1 reflecting that they had and 0 that they did not. Finally, current membership in a gang was controlled for dichotomously, with 1 reflecting current involvement and 0 indicating no current involvement. Race and gender are not controlled for in this study because they are time-

invariant and this study is interested in within-individual change in offending.

## Mechanisms

Larson and Sweeten (2012) recently assessed the relationship between romantic dissolution and crime and proposed that a number of mechanisms likely account for the effect, namely strain/negative emotionality and delinquent peer influence and exposure. Given present interest in the effect of romantic dissolution on offending, this study controls for these potential mechanisms in a number of ways. First, Brief Symptom Inventory (BSI) subscales of depression<sup>8</sup>, anxiety<sup>9</sup>, and hostility<sup>10</sup> are combined and used as a proxy of strain/negative emotionality. These three subscales were summed and then divided by three for their average. The result is a strain/negative emotionality scale that ranges from 0 to 4, with higher scores indicating greater strain/negative emotion. Second, routine activities, which measures the extent of respondents' unstructured socializing, is measured by asking youth how often they rode around in a car just for fun, got together with friends informally, went to parties, and went out for fun. Each of these items is measured using the following 5-point Likert scale: 1) Never, 2) A few times a year, 3) Once or twice a month, 4) At least once a week, and 5) Almost every day. Third, a set of three peer-specific measures are used to capture changes in peer influence. The first of

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<sup>8</sup> The depression subscale is the mean of the following 6 items, measured on a scale ranging from 0 to 4: thoughts of ending your life, feeling lonely, feeling blue, feeling no interest in things, feeling hopeless about the future, feelings of worthlessness.

<sup>9</sup> The anxiety subscale is the mean of the following 6 items, measured on a scale ranging from 0 to 4: nervousness of shaking inside, suddenly scared for no reason, feeling fearful, feeling tense or keyed up, spells of terror or panic, feeling so restless you couldn't sit still.

<sup>10</sup> The hostility subscale is the mean of the following 6 items, measured on a scale ranging from 0 to 4: feeling easily annoyed or irritated, temper outbursts that you could not control, having urges to beat, injure, or harm someone, having urges to break or smash things, getting into frequent arguments.

these measures uses twelve items<sup>11</sup> from the Rochester Youth Study (see Thornberry et al., 1994) to capture the extent to which respondents' close friends engaged in crime. Each item was measured using a 5-point Likert scale: 1) None of them, 2) Very few of them, 3) Some of them, 4) Most of them, and 5) All of them. The second peer-specific measure captured peer influence using a mean of seven items that asked respondents how many of their friends encouraged them to go out drinking, to get drunk or high, to sell drugs, to steal something, to hit or beat someone up, or to carry a weapon. A 5-point Likert scale of the following form was used for these items: 1) None of them, 2) Very few of them, 3) Some of them, 4) Most of them, and 5) All of them. The third and final peer-specific control is number of close friends. This variable measures the number of close friends that subjects report, which indicates the size of and changes to their peer network across the waves used in this study.

### Psychosocial characteristics

A set of three psychosocial measures is also controlled for in this study (see Cauffman & Woolard, 1999; Greenberger et al., 1974). The first of these psychosocial measures is temperance, which serves as a proxy for self-control (see Gottfredson & Hirschi, 1990). Temperance is captured with the mean of the impulse control subscale<sup>12</sup>

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<sup>11</sup> The 12 behaviors that the items assess include how many of the respondent's friends have destroyed property, hit or threatened to hit someone, sold drugs, gotten drunk once in a while, gotten high on drugs, carried knife or gun, owned a gun, gotten into a physical fight, gotten hurt in a fight, stole something worth more than \$100, stole a motor vehicle, or committed burglary

<sup>12</sup> The items for the impulse control sub-scale include: 1) I'm the kind of person who will try anything once, even if it's not that safe (reverse coded); 2) I should try harder to control myself when I'm having fun (reverse coded); 3) I do things without giving them enough thought (reverse coded); 4) I like to do new and different things that many people would consider weird or not really safe (reverse coded); 5) I become 'wild and crazy' and do things other people might not like (reverse coded); 6) When I'm doing something fun (like partying or acting silly), I get too carried away and go too far (reverse coded); 7) I say the first



and the suppression of aggression subscale<sup>13</sup>. All 15 of the items that comprise this measure are measured using a 5-point Likert with the following range: 1 = False, 2 = Somewhat False, 3 = Not Sure, 4 = Somewhat True, and 5 = True. The second psychosocial characteristic controlled for in this study is psychosocial maturity. The psychosocial maturity measure used here is the mean of thirty items that come from the three following psychosocial dimensions: Self-Reliance<sup>14</sup>, Identity<sup>15</sup>, and Work Orientation<sup>16</sup>. Each of these thirty items is measured with a 4-point Likert scale that ranges from “Strongly Disagree” to “Strongly Agree.” The third and final psychosocial characteristic in this study is Future Outlook, which is measured using an inventory that was developed by Cauffman and Woolard (1999). Future Outlook is measured using the

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thing that comes into my mind without thinking enough about it (reverse coded); 8) I stop and think things through before I act.

<sup>13</sup> The items for the suppression of aggression sub-scale include: 1) People who get me angry better watch out (reverse coded); 2) If someone tries to hurt me, I make sure I get even with them (reverse coded); 3) if someone does something I really don't like, I yell at them about it; 4) I pick on people I don't like (reverse coded); 5) I lose my temper and 'let people have it' when I'm angry; 6) I say something mean to someone who has upset me (reverse coded); 7) When someone tries to start a fight with me, I fight back (reverse coded).

<sup>14</sup> The items for the self-reliance subscale, which are all reverse coded, include: 1) I don't like to tell my ideas about God when I know others disagree with me; 2) It's not very practical to decide what kind of job you want because that depends so much on other people; 3) If you haven't been chosen as the leader, you shouldn't suggest how things should be done; 4) In a group I prefer to let other people make the decisions; 5) You can't be expected to make a success of yourself if you had a bad childhood; 6) Luck decides most things that happen to me; 7) The main reason I'm not more successful is that I have bad luck; 8) When things go well for me, it is usually not because of anything I myself actually did; 9) I feel very uncomfortable if I disagree with what my friends think; 10) it is best to agree with others, rather than say what you really think, if it will keep the peace.

<sup>15</sup> The items for the identity subscale, which are all reverse coded, include: 1) I'm the sort of person who can't do anything really well; 2) I can't really say what my interests are; 3) I can't think of any kind of job that I would like a lot; 4) My life is pretty empty; 5) I can't seem to keep people as friends for very long; 6) I act like something I'm not a lot of the time; 7) I never know what I am going to do next; 8) I change the way I feel and act so often that I sometimes wonder who the “real” me is; 9) Nobody knows what I'm really like; 10) I am not really accepted and liked.

<sup>16</sup> The items for the identity subscale, which are all reverse coded, include: 1) Hard work is never fun; 2) If something more interesting comes along, I will usually stop any work I'm doing; 3) I find it hard to stick to anything that takes a long time to do; 4) I hate to admit it, but I give up on my work when things go wrong; 5) I often don't get my most important work done because I've spent too much time on other work; 6) I seldom get behind on my work; 7) I tend to go from one thing to another before finishing any one of them; 8) I often don't finish work that I start; 9) I often leave my homework unfinished if there are a lot of good TV shows on that evening; 10) No one should expect you to do work that you don't like.

mean of eight items<sup>17</sup> using a 4-point Likert scale that ranges from “Never True” to “Always True.”

#### Rational choice

A singular gauge of rational choice, social costs of crime, is controlled for as well. Social costs of crime is measured using the mean of 6, 5-point Likert items ranging from “Very Unlikely” to “Very Likely.” These 6 items ask respondents about their views regarding violation of the law and whether it would result in suspension from school, loss of respect from close friends, loss of respect from family, loss of respect from neighbors, loss of respect from a romantic partner, or difficulty finding a job.

#### Social support

The final control variable used in this study measures the extent of social support that participants self report (see Cullen, 1994; Cullen, Colvin, & Vander Ven, 2006). To capture social support, participants were asked about whether they had any adults in their lives who provide support in 8 domains. They were asked: 1) Are there any adults who you admire and would want to be like?, 2) If you needed some information or advice about something, is there someone you could talk to?, 3) If you were having trouble at home, is there someone you could talk to?, 4) If you got an award or did something well, is there someone you would tell?, 5) Is there an adult with whom you can talk about

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<sup>17</sup> The items for the Future Outlook measure ask respondents whether they 1) will keep working at difficult, boring tasks if they know it will help them ahead later, 2) think about how things might be in the future, 3) make lists of things to do, 4) weigh the good versus the bad, 5) will give up their happiness to get what they want in the future, 6) would rather save money for a rainy day than spend it on something fun, 7) can see their life 10 years from now, and 8) think about the consequences before they do something.

important decisions?, 6) Is there an adult you can depend on for help if you really need it?, 7) Is there an adult you can feel comfortable talking about problems with?, and 8) Is there a special adult person in your life who cares about your feelings? Their social support score is the sum of the eight items that participants endorsed.

## RESULTS

### Summary statistics

The descriptive statistics for the time-varying covariates used in the present study are shown in Table 7. Approximately forty-six percent of all person-time observations saw participants involved in a steady romantic relationship, while roughly one-fifth (21 percent) involved the dissolution of a previously steady, meaningful relationship.

Respondents were cohabiting in twenty-two percent of person-time occasions from wave 7 to 12 and involved with an antisocial romantic partner thirty-six percent of the time.

Finally, respondents reported physical victimization at the hands of a romantic partner in thirteen percent of cases and emotional victimization in twenty-six percent of cases.

(Insert Table 7 about here)

Of the 4,407 person-time observations in waves 7-10 examined in the present study, 943 involved the dissolution of a meaningful romantic relationship. Importantly, there are a variety of differences across the sample by the experience of romantic dissolution. First, total offending variety scores are significantly higher in waves when a relationship dissolved (1.54;  $p < .001$ ) compared to the alternative relationship statuses

(1.15;  $p < .001$ ). Second, there are notable differences by romantic dissolution across all of the moderating factors of interest in this study. Subjects who experienced romantic dissolution were less likely to be cohabiting (.15 vs. .23;  $p < .001$ ), more likely to be involved with an antisocial romantic partner (.41 vs. .33;  $p < .001$ ), more likely to be physically (.23 vs. .11;  $p < .001$ ) and emotionally victimized (.34 vs. .24;  $p < .001$ ) by a romantic partner, and less likely to be currently employed (.38 vs. .43;  $p < .001$ ). Third, significant differences also exist across the strain/negative emotion and peer influence/exposure measures. Respondents have higher scores on negative emotionality (.42 vs. .38;  $p < .05$ ), unstructured socializing (3.06 vs. 2.85;  $p < .001$ ), number of close friends (2.10 vs. 1.98;  $p < .001$ ), peer antisocial behavior (1.77 vs. 1.66;  $p < .001$ ), and peer antisocial influence (1.53 vs. 1.42;  $p < .001$ ) in waves when romantic dissolution occurred. Finally, few differences exist across the control variables in this study by romantic dissolution. Instances of dissolution were associated with younger age (21.83 vs. 21.97;  $p < .05$ ), the presence of biological children (.46 vs. .43;  $p < .10$ ), and lower scores on temperance (3.15 vs. 3.23;  $p < .05$ ), yet only statistically trivial differences exist for measures of psychosocial maturity, future orientation, consideration of others, social costs of crime, or social support. Taken together, romantic dissolution is associated with important differences, especially among the moderating factors of special interest to this study, but few differences exist across the various other individual-level characteristics that are controlled for.

#### Total Offending Variety by Relationship Context

Table 8 presents the estimates from a fixed effects negative binomial model that

was estimated to predict the effect of romantic dissolution on total offending variety scores. Original model estimates were transformed into Incidence Rate Ratios (IRR here forward) post-estimation by exponentiating each coefficient. IRRs reflect the percentage change in variety scores based on a one-unit increase in a predictor variable. For example, an IRR of .75 for current employment would equate to offending being 25 percent lower in waves when an individual was working. A score of 1.25 for the same variable would reflect a 25 percent increase in offending variety scores. In essence, then, IRRs are interpreted in a fashion that is in line with odds ratios.

(Insert Table 8 about here)

A number of significant relationships are uncovered in the full model that is estimated without interactions for the contextual variables of interest. First, the results suggest that individuals increase their offending during waves in which they experienced romantic dissolution. Specifically, the IRR suggests that respondents increased their offending variety by an impressive 23 percent ( $p < .01$ ) in such waves. Further, on average, individuals in this sample also commit more crime in waves that they are romantically involved, which suggest that general romantic involvement during emerging adulthood is not particularly protective for this group. This model also shows that all five of the measures of potential causal mechanisms are statistically significant. Of the mechanism-specific measures, peer antisocial behavior has the strongest relationship with total offending variety scores ( $IRR = 1.27, p < .001$ ). Conversely, the greater the proportion of a wave that individuals spent institutionalized, the lower their offending

(IRR = .81  $p < .05$ ). Finally, exposure time (IRR = 1.04,  $p < .05$ ) and gang involvement (IRR = 1.35,  $p < .01$ ) increased offending variety across waves, whereas temperament (IRR = .71,  $p < .001$ ) and consideration of others (IRR = .88,  $p < .001$ ) were associated with lower offending variety scores overall.

Table 9 presents the estimates for the 5 additional fixed effects negative binomial models that were estimated to assess the moderating influence on offending of cohabitation, involvement with an antisocial partner, physical and emotional victimization by a romantic partner, and employment. Each of the five models includes all the time-varying covariates estimated in the full-model but Table 8 presents only the estimates for the interactive variables of interest. Contrary to expectations, romantic dissolution was not associated with a reduction in offending in any of the estimated models. First, the moderating influence of cohabitation was assessed in model 2. Here, only one estimate was statistically significant: the dissolution of non-cohabitive relationships. Specifically, individuals increased their offending in waves in which they experienced the dissolution of a non-cohabitive relationship (IRR = 1.23,  $p < .01$ ).

(Insert Table 9 about here)

Model 3 in Table 9 displays the effect of romantic dissolution by whether it involved an antisocial romantic partner, suggesting that the dissolution of an antisocial relationship is particularly criminogenic. Indeed, waves that saw an individual end a relationship with an antisocial romantic partner were associated with offending variety

scores an impressive 62 percent higher ( $p < .001$ ) than in waves that individual remained single.

As seen in models 4 and 5, the magnitude of the romantic dissolution effect is also contingent upon the incidence of both physical and emotional forms of intimate partner violation. However, rather than the end of a violent romantic relationship reducing offending for individuals, it increases it notably. Individuals who experienced physical victimization by their partner and had that relationship dissolve had offending variety scores 57 percent higher than in waves where they were single. Heightened offending also occurred when individuals were physically victimized while in a relationship (IRR = 1.23,  $p < .01$ ). A similar story emerges in model 5 for emotional intimate partner violence, with individuals having higher offending variety scores in waves they experience emotional victimization while in a relationship (IRR = 1.28,  $p < .001$ ) and especially in waves where an emotionally violent relationship comes to an end (IRR = 1.50,  $p < .001$ ).

Finally, model 6 shows the moderating influence of current employment status for romantic dissolution. Here, the effect of romantic dissolution is dependent upon whether an individual reports current employment. Individuals who had a relationship dissolve only increased their offending if they were unemployed (IRR = 1.27,  $p < .01$ ). If they experienced romantic dissolution when they were employed, their offending was not higher but rather in line with waves where they were single.

## SUMMARY

The goal of this study was to take the first step in contextualizing the impact of

nonmarital romantic dissolution on offending among an at-risk group of youth navigating the instability of emerging adulthood. More specifically, its primary motive is to provide a deeper, more nuanced account of the various relationship contexts and individual circumstances under which romantic dissolution affects criminal behavior. All of the moderating factors of interest in this study had a unique bearing on the effect of romantic dissolution. Contrary to expectations, however, not one of the relationship or individual factors of interest was associated with a significant decrease in offending variety. Indeed, experiencing the dissolution of a relationship increased criminal behavior when that relationship involved an antisocial romantic partner, physical victimization, or emotional victimization. Furthermore, the effect of romantic dissolution on offending variety was also higher during waves in which individuals were unemployed, although the effect was only marginally greater than romantic dissolution's direct effect. The only contextual factor that did not exacerbate criminal behavior was cohabitation. That is, romantic dissolution only increased offending variety during waves where individuals were not residing with their romantic partner. The effect of dissolution was statistically insignificant for those who experienced the dissolution of a cohabitive relationship, for those who were employed, and for those who were not involved in relationships in which they were victimized.

In summary, the findings of this study suggest that romantic dissolution does indeed matter to understanding offending behavior during emerging adulthood, but that doing so without attention to various relationship dynamics or personal circumstances is unlikely to provide a complete or accurate understanding of its true impact. The effect of romantic dissolution on crime is stronger when it involves an antisocial romantic partner,



physical and emotional forms of intimate partner victimization, and unemployment. In essence, it appears that the effect of romantic dissolution is particularly influential for those who are without many “stakes in conformity” (see Sherman et al., 1992). Further, contrary to original theoretical expectations, the exit out of a romantic partnership does not decrease offending among this at-risk sample of youth under any of the examined circumstances. Given the volatility of antisocial partnerships and relationships that involve intimate partner violence, it was hypothesized that romantic dissolution could function in a positive fashion and reduce offending. This was not the case in the current study, however. Neither was it the case that the end of cohabitive relationships, which have strong economic underpinnings in many cases, led to higher offending variety. Instead, no effect on offending was found for the dissolving of those relationships.

Considered together, romantic dissolution increases offending variety in general but especially when individuals are involved in antisocial, violent partnerships, and when they are unemployed. Importantly, there are a few potential shortcomings in the current study that deserve attention. First, romantic dissolution occurs, on average, in 20 percent of the person-time observations in waves 7 through 10. This number alone is of no issue. However, when romantic dissolution is interacted with the various relationship and individual dynamics of interest in this study, there is a relative paucity of dissolution events being modeled. In other words, there are few occasions of romantic dissolution that involve cohabitation, an antisocial romantic partner, physical intimate partner victimization, emotional intimate partner victimization, or unemployment. The fixed effects negative binomial models that are estimated in this study thus produce estimates of these interactions that are the product of a limited number of events. Specifically, only

15 percent (n = 141) of romantic dissolutions involve cohabitive relationships, 41 percent (n = 386) involve an antisocial partner, 23 percent (n = 217) involved physical intimate partner violence, and 34 percent (n = 321) involved emotional intimate partner violence. Relatedly, given the within-individual emphasis of fixed effects models, there is no way to determine how many individuals are contributing to the estimates of these interactions. It may be that a subset of participants are flowing in and out of relationships in each wave and having a large influence on the estimates presented here. Second, this study does not differentiate between those who were victimized by a partner but also perpetrated intimate partner violence and those who were simply victims of violence. This assessment would be unreliable given how few individuals in this study were only victims of intimate partner violence in waves where dissolution also occurred. In theory, the effect of romantic dissolution may vary across these statuses. Third, the indicator of having an antisocial romantic partner is based upon offending behavior. It does not give attention to the drug or alcohol use of a romantic partner, which may be meaningful.

Given these shortcomings, there are a number of potential avenues down which future research should proceed. First, a larger dataset (e.g. Fragile Families) could be used to assess more critically the dissolution of cohabitive relationships. In the present study there were relatively few occasions of romantic dissolution. Consequently, focusing attention to alternative datasets may provide a different picture into the effect of such events on offending behavior and various other antisocial domains. Future work should also examine the implications of this event among a less at-risk group of individuals. The instability of emerging adulthood has been found to apply more strongly to non-disadvantaged groups (see Meier & Allen, 2009) so addressing the questions of this study

with a more prosocial sample could uncover meaningful differences. Second, future work should focus more closely on intimate partner violence and how the exit out of violent relationships affects not only offending but also substance use and victimization. In this study, if participants reported being physically or emotionally victimized by a romantic partner, they most often reported perpetrating such violence as well. This could be expected given the assortative mating processes at play with this at-risk sample, but the victim-offender overlap would be less prevalent among a more general population. The same could be said in regard to the employment measure in this study. Finally, future work in this area should assess the gender dynamics that surround the incidence of romantic dissolution and how they may vary by relationship dynamics and individual circumstances. Previous work in this area has shown that males increase offending and substance use but that women only increase their substance use (Larson & Sweeten, 2012). Therefore, it could be that failure to assess gender variation in romantic dissolution among these at-risk subjects biases this study's estimates downward.

## CHAPTER 6

### DISCUSSION

#### OVERVIEW

Over twenty years of research focused on marriage on crime has established a virtual consensus among criminologists that marriage matters (Farrington & West, 1995; Laub & Sampson, 2003; Laub et al., 1998; Piquero et al., 2002; Sampson & Laub, 1993; Sampson et al., 2006). A parallel body of literature that emerged more recently has directed its attention to adolescent relationships and revealed that romantic involvement earlier in the life course also has strong effects on antisocial behavior (e.g. Haynie et al., 2005; McCarthy & Casey, 2008). Considered together, these efforts demonstrate that romantic involvement must not be overlooked in attempts to understand crime across the life course. Importantly, however, a focus limited only to involvement in adolescent romantic relationships and marriage has left two increasingly important issues unaddressed. The main goal of this dissertation was to bring these issues to light in a fashion that moves the field closer to a more comprehensive understanding of the romance-crime nexus.

The first issue concerns the momentous shifts that have altered the institution of marriage over the past half-century. Recent Pew estimates demonstrate that significantly fewer Americans are marrying today relative to fifty years ago. Whereas 72 percent of American adults were married as of 1960, only 51 percent were wedded as of 2011 (Cohn et al., 2011). Following the decline of marriage involvement has been an impressive delay in the general timing of marriage. As of 2011 the median age of first marriage for

men and women was 28.7 and 26.5 years, respectively, compared to only 22.8 and 20.3 years fifty years ago. While marriage occurs less often and later than it once did, such shifts of course do not equate to young men and women simply refraining from romantic involvement altogether. Instead, what has followed is movement toward nonmarital dating and cohabitive relationships during the early-to-mid twenties—a finding that especially applies to the offending population (King & South, 2011). Yet, very little theoretical or empirical attention within criminology has focused on nonmarital relationships (see, however, Horney et al., 1995; Lonardo et al., 2010), which is particularly concerning given that they are now the norm in the years that the age-crime curve is descending (Farrington, 1986). As argued by Capaldi and colleauges (2008, p.268), “a focus on the institution of marriage...seems less relevant for contemporary theorizing regarding persistence and desistance of crime.”

The second shortcoming presently afflicting the extant literature on romantic involvement and crime is the continued focus on *romantic involvement* and *relationship quality*. Notwithstanding a few recent studies (e.g. Bersani & Doherty, 2013; Carbone-Lopez, Rennison, & Macmillan, 2012; Halpern-Meekin et al., 2013), the field’s obsession with the benefits of romantic formation and maintenance has disregarded the simple reality that relationships dissolve with marked regularity (Cherlin, 2009). To be sure, nearly everyone will experience the dissolution of a nonmarital relationship at some point (Baumeister, Wotman, & Stillwell, 1995; Raley, Crissey, & Muller, 2007), and, today, even half of first marriages will end (Cherlin, 2010). Simply put, more than ever, research that neglects such instability misses a consequential piece of the puzzle.

Theoretically, the perspective that best forges these shortcomings with the extant literature on romantic relationships and crime is Arnett's (2000) theory of Emerging Adulthood. Although multifaceted, Arnett's work speaks to the fact that marriage is no longer normative during the early twenties and that, consequently, the relationships now filling that stage of the life course are nonmarital and characterized by greater instability than in any other period over the last century. Thus, integrating the theory of Emerging Adulthood with the extant literature on romance and crime brings the field closer to where it should have been a decade ago.

The ability of Arnett's (2000) work to bring the aforementioned issues to the forefront of ongoing discourse within criminology led this dissertation to its adoption of three primary objectives. The first objective was to examine whether the effect of romantic dissolution on offending is limited to certain crime types. Specifically, the question of whether romantic dissolution is differentially associated with aggressive and income offending was addressed. The second interest of this study was to come closer to an understanding of the various mechanisms that underlie the effect of romantic dissolution. The mechanisms that were assessed in this study were strain/negative emotionality and delinquent peer influence and exposure (see Larson & Sweeten, 2012). The final objective was to examine the extent to which the effect of romantic dissolution is moderated by various relationship dynamics and individual circumstances (e.g. having an antisocial romantic partner, unemployment, etc.). In the end, this focus takes the first step toward contextualizing the impact of nonmarital romantic dissolution on crime during emerging adulthood. Providing further context to this phenomenon helps advance a more comprehensive understanding of romantic involvement's relationship with

offending and other forms of antisocial behavior across the life course. It also helps set the stage for a fruitful line of future inquiry; one, in fact, that very recently commenced (i.e. Bersani & Doherty, 2013; Carbone-Lopez et al., 2012; Halpern-Meekin et al., 2012). The following section reviews the primary conclusions of this study. Thereafter, limitations of this study are explored, avenues of future research are proposed, and various policy implications are discussed.

## ROMANTIC DISSOLUTION ACROSS OFFENSE TYPES

The study of nonmarital romantic dissolution has only recently emerged as an avenue of empirical inquiry within the field of criminology (e.g. Carbone-Lopez et al., 2012; Larson & Sweeten, 2012). The same cannot be said of the attention it has received from psychology. The phenomenon's implications for emotional and psychological health are well documented (Kiecolt-Glaser et al., 2001), and little uncertainty surrounds the finding that romantic dissolution is strongly related to a range of negative interpersonal outcomes (Braithwaite et al., 2010; Chung et al., 2003; Rhoades et al., 2011). Whether all categories of crime are on that list of negative interpersonal outcomes was one of the questions at hand.

Accordingly, this study examined whether romantic dissolution is differentially associated with aggressive and income-based forms of offending. A host of psychological studies indicate that romantic dissolution is strongly associated with increased aggression (Davis et al., 2003; Fisher, 2004; Leary & Springer, 2001; MacDonald & Leary, 2005). In fact, according to Fisher (2004, p.164), "love and hate are intricately linked in the human brain. The primary circuits for hate/rage run through regions of the amygdala downward

to the hypothalamus and on to centers in the periaqueductal gray, a region in the midbrain.” The aggression-dissolution link is so strong that in rare cases an individual’s “perceived or actual abandonment” leads to homicide (MacDonald and Leary, 2005, p.214).

The findings of this study revealed that the effect of nonmarital dissolution does vary somewhat across aggressive and income-based offending. The increase in income-based crimes committed in waves in which individuals experienced romantic dissolution was nearly double the increase identified for aggressive crimes in such waves. That said, however, in each of the offense-specific models romantic dissolution expressed one of the strongest effects across all time-varying covariates that were modeled. In sum, though there were differences in the apparent magnitude of the effect across offense types, romantic dissolution retained a significant relationship with both aggressive and income-based crime among this sample. As such, it appears that both the psychological and sociological literatures that motivated this study applied to the relationships uncovered here. As is the case with any preliminary investigation, these findings necessarily require replication and further scrutiny by future research in this area.

## MECHANISMS UNDERLYING ROMANTIC DISSOLUTION

In one of the first studies to uncover the relationship between romantic dissolution on crime, Larson and Sweeten (2012) proposed that the effect likely operates through a number of key mechanisms. The mechanisms that they speculated account for the effect include the following: strain, exposure to delinquent peers, and a reduction in informal social control. These mechanisms were not tested in their work so the second goal of the



present study was to identify the extent to which two of the mechanisms, strain/negative emotionality and exposure to delinquent peers, account for the dissolution effect, especially among a more criminogenic sample than was previously assessed.

The influence of strain/negative emotionality was proposed as one of the various mechanisms due to a large body of empirical work that has found romantic dissolution to be one of the most challenging experiences a human can endure (citation). In addition to aggression, the loss of a romantic partner is associated with increased depression, anxiety, anger, and the onset of various mental disorders (Rhoades et al., 2010; Wheaton, 1990). In sum, attention to romantic dissolution over the past few decades has centered on its emotional and psychological consequences, showing that it can serve as a particularly turbulent life event. Therefore, the present study considers this relationship and its potential association with offending by focusing on a cumulative measure of strain/negative emotionality derived from the Brief Symptom Inventory (Derogatis & Melisaratos, 1983) to determine whether changes in that domain reduce the effect of romantic dissolution on crime. The dissolution effect would be better understood if in fact it did.

Results of the study revealed that strain/negative emotionality did in fact account for a reduction in aggressive and income-based forms of offending, although its effect is not as robust as expected. Only one of the two romantic dissolution effects (romantic dissolution followed by romantic involvement) was lower when the strain/negative emotion measure was controlled in the model. That said, however, in line with General Strain Theory (Agnew, 1992; Agnew, 1999; Agnew, 2001; Broidy & Agnew, 1997), the

independent effect of the strain/negative emotion measure was positive and significant, even in light of some of the strongest predictors of criminal behavior.

In addition to strain/negative emotionality, this study also focused attention to peer influence/exposure to see if the effect of romantic dissolution on crime was at all attributable to peers and unstructured activities. In line with Larson and Sweeten's (2012) proposition, the effect of this group of measures did account for a sizeable reduction in romantic dissolution's effect. In fact, the relationship between romantic dissolution and offending was reduced by as much as thirty percent in models where this set of measures was controlled. Although Warr (1998) examined the extent to which changes in peer exposure following romantic involvement counted for reduced crime, it appears the same forces are at work when a relationship ends. Individuals resort back to their peer groups and, as such, are increasingly susceptible to the influence of peers, as well as the increased opportunities for antisocial behavior that arise with unstructured socializing.

Taken together, this study determined that the mechanisms proposed by Larson and Sweeten (2012) account for some, but not all, of the relationship between romantic dissolution and crime. Strain/negative emotionality reduced romantic dissolution's impact on offending, although only marginally. It did, however, express a strong, positive effect on both aggressive and income-based forms of offending. Peer influence/exposure measures on the other hand, accounted for a notable reduction in the effect of romantic dissolution on offending, while also serving as some of the strongest covariates across all models. The results of this study are in line with the recent conclusions of Bersani and Doherty (2013). They assessed the contribution of what they categorized as the "enduring" and "situational" processes that Laub and Sampson (2003) highlighted as the

mechanisms that account for the marriage effect. By examining changes in offending subsequent to divorce, they determined that situational factors have more to do with the changes that marriage induces. Specifically, “supervision and monitoring by a romantic partner, knifing off of criminogenic networks, and routine activities” were the processes most strongly related to the increase in offending following marital dissolution (Bersani & Doherty, 2013, p.25). These findings are largely in line with this study’s findings that indicate peer influence/exposure and changes in unstructured routine activities account for much of romantic dissolution’s effect. Even though divorce and nonmarital romantic dissolution are unique phenomena, the processes through which they increase offending appear to be similar. Future efforts must revisit this matter with measures that more directly tap into the mechanisms that have been proposed.

#### MODERATORS OF ROMANTIC DISSOLUTION

The preponderance of research on romantic dissolution has concentrated on the phenomenon’s various psychological, emotional, and interpersonal consequences (e.g. citations). By and large, this work has directed little attention to the general notion that romantic dissolution may be followed by positive life changes (e.g. Slotter et al., 2010, Woodward et al., 2010). Within criminology specifically, research on romantic dissolution and crime, although just recently emerging, has followed suit. That is, efforts to date have examined the termination of a romantic relationship under the general assumption that it may lead to crime. This assumption is problematic, however, because it does not appreciate the broad array of relationship characteristics and individual

circumstances that likely dictate the nature of romantic dissolution's relationship with crime.

The various moderating factors that were assessed in this study included whether respondents were cohabiting, involved with an antisocial partner, victims of physical or emotional forms of intimate violence, or unemployed. First, attention to cohabitation was theoretically motivated by a body of work within sociology that indicates the dissolution of cohabitive relationships strongly undermine an individuals' economic stability. For example, Avellar and Smock (2005) examined the implications of dissolved cohabiting relationships and found that the financial situations of both men and women deteriorated significantly post-dissolution. This is due to the financial dependence that characterizes nonmarital cohabiting relationships, as most cohabiters either pool their money together or share it with their romantic partner (Arnett, 2004; Edin, 2000; Heimdal & Houseknecht, 2003). Theoretically, if individuals are at least somewhat financially dependent upon their romantic partner, the dissolution of their relationship could increase their involvement in crime. In addition to economics, research has suggested that cohabitive relationships involve greater overall emotional investment than dating relationships (Stanley et al., 2006), which could result in romantic dissolution being a more impactful experience. The findings of this study, however, indicate that cohabitive dissolution is not associated with increased offending. Only dating relationships that dissolved were found to increase crime. This finding runs contrary to the above literature, but there are unmeasured factors at play. Cohabitive dissolution is unlikely to be followed by offending if a respondent under study is the romantic partner who ended a relationship (or who is control of a residence, etc.). Without providing insight into which partner

terminated a relationship, this conclusion is tenuous and should be revisited in future work.

Second, involvement with an antisocial romantic partner was also conceived as a factor that may moderate the impact of romantic dissolution on crime. As Knight (2012) discusses, assortative mating processes increase the probability that offenders select into a romantic relationship with another antisocial individual. Given the various studies that have identified the criminogenic effect of antisocial relationships (Woodward et al., 2002), it is possible that the impact of romantic dissolution on offending is at least partly dependent upon whether the relationship that dissolved involved an antisocial partner. A recent study by Smith and colleagues (2012) on problem drinking that found problem drinking increased when women ended a marriage with a non-problem drinker and decreased when women ended a relationship with a problem drinker supports this possibility. The findings of this study revealed that the termination of an antisocial partnership exacerbates rather than decreases offending relative to that which occurs during singlehood. Thus, it seems antisocial relationships dissolve in a manner that has a negative impact on individuals. Given Giordano and colleagues' (2010) finding that antisocial individuals are not involved in "cold and brittle" relationships as Hirschi (1969) originally proposed, it appears that even the loss of seemingly unhealthy and problem-ridden relationship is a difficult transition to make. That is, romantic relationships that see both partners involved in crime are not without the investment that would make the event a positive experience.

Third, relationships that involve intimate partner violence differ from prosocial relationships in a variety of important ways that were hypothesized to moderate the effect

of romantic dissolution. Higher levels of control and conflict characterize relationships that involve intimate partner violence and infidelity (see Giordano et al., 2010). They are also associated with anxiety (Coker et al., 2002), substance use (Leonard & Mudar, 2003; Temple et al. 1991), and suicidal ideation (Simon et al., 2002). As such, the dissolution of a relationship in which individuals experienced victimization could function positively and serve to lower their involvement in crime. The findings of this study do not indicate that this is the case, however, which is in line with a number of studies that tested a similar relationship for changes to mental health (Campbell & Soeken, 1999; Zlotnick, Johnson, & Kohn, 2006). In relationships where an individual is experiencing physical or emotional forms of violence, the end of a relationship still increases offending. A problem with the present study is that it is unable to determine whether an individual is also perpetrating such violence, which would make violence within a relationship a mutual exchange. It may be that more precise measurement that captures only victimization paints a different picture than the one presented here. If it did not, it may be that the males and females who are being victimized by a romantic partner become strongly dependent upon their partner and still struggle when the relationship finally comes to an end (see Bornstein, 2006).

Finally, it was hypothesized that employment could regulate the magnitude of romantic dissolution's effect on crime given the heightened vulnerability to offending of individuals who are without consistent work (e.g. Laub & Sampson, 2003; Uggen, 2000). Relationships can serve as a financial crux for some men and women but especially for those with a criminal record who struggle to find employment (see Travis, 2005). The findings of the present study indicate that the effect of romantic dissolution on crime was

exacerbated among participants who were unemployed. Thus, it appears that those who are without a job struggle when they lose their romantic partner or relationship. This study is unable to test this possibility directly but speculates that those processes are at work given how notable the increase the dissolution effect is.

In summary, the moderating factors of interest in this study present a stark reality surrounding the implications of romantic dissolution for at-risk males and females. In no case did nonmarital romantic dissolution result in less crime. In other words, it does not appear that the end of a romantic relationship signifies a positive life event or “hook for change” (Giordano et al., 2002) among this at-risk sample no matter the nature of the partnership or individual’s circumstance. The various disadvantageous characteristics of a romantic relationship seem to spill over and intensify rather than mitigate the effect of romantic dissolution on crime. Attention to larger, general population samples is necessary to provide a more rigorous test of these various relationships given how relatively few events contributed to the conclusions presented here.

## POLICY IMPLICATIONS

The conclusions of the present study beg the following question: what can be done to counteract the effect of romantic dissolution on offending? There is no way to “stop” the dissolution of romantic partnerships. Romantic loss will inevitably occur across all stages of the life course, from adolescence to emerging adulthood to late life. Moreover, romantic dissolution will touch all forms of relationships, from those that involve dating to those that are recognized by law. As such, the most pragmatic response to this issue involves a three-prong approach that focuses on the following: 1) altering

how individuals respond to romantic loss, 2) preventing unhealthy relationships through education and the promotion of healthy relationships, and 3) providing effective and accessible forms of support that help individuals deal with the distress that often follows romantic dissolution. This section focuses its attention to each of these three strategies. It concludes with a brief comment about what specifically the criminal justice can do to reduce the impact it has on romantic instability.

While criminological attention to the relationship between romantic dissolution and offending is just emerging, much attention has focused on the incidence of stalking following romantic loss (e.g. Dennison & Stewart, 2006; Fisher, 2006; Langhinrichsen-Rohling et al., 2003; Patton, Nobles, & Fox, 2010; Roberts, 2005). Though minor forms of stalking are relatively common among certain groups (e.g. online stalking among college students), more serious forms often follow the dissolution of unhealthy relationships characterized by high levels of jealousy (Wigman et al., 2008), emotional or physical violence (Smet et al., 2012; Temple, 2010), control (Roberts, 2005), and possessiveness (Langhinrichsen-Rohling et al., 2003). The question, then, is what causes individuals in such relationships to respond to dissolution with stalking? Research has highlighted the relevance of attachment style to this phenomenon (e.g. Patton et al., 2010). Attachment theory, which was originally proposed by Bowlby (1969), suggests that the parent-child relationship early in life largely determines an individual's attachment style. While warm and healthy parent-child bonds promote secure attachment, unstable and callous parent-child relationships result in insecure forms of attachment (i.e. insecure-avoidant and insecure-anxious). An individual's attachment style then dictates an individual's selection of and functioning in subsequent relationships, specifically those



that are romantic. According to Feeney and Noller 2004), individuals who possess an insecure attachment style are likely to be sensitive to rejection and respond to it much more unhealthily than an individual who has a secure attachment style. Accordingly, it may be that insecure attachment forms, and the emotional and psychological responses to dissolution they elicit, increase the likelihood of crime. If this is in fact the case, a number of individual-specific strategies should be employed.

First, significant attention should be directed toward parenting practices during the earliest stages of childhood (Farrington & Welsh, 2010; Piquero et al., 2010). Given that attachment styles are formed early in the life course, developing programs aimed at promoting healthy parent-child bonds as early as possible would result in more healthy attachment styles, thereby making individuals less vulnerable to the instability that has increasingly characterized romantic partnerships. This proposal is particularly relevant to the sample of at-risk males and females that were examined here. Youth enmeshed in the juvenile justice system are more likely than their counterparts to have experienced one-parent homes or child-rearing practices that were not particularly effective or consistent. Additionally, identifying individuals with insecure attachment styles as early as possible has the potential to benefit their romantic trajectories and reduce their susceptibility to romantic dissolution across the life span. There exists a real opportunity for juvenile justice systems and practitioners to identify insecurely attached at-risk youth and to develop, or at least strengthen, programming efforts that aim to help young males and females move to a more secure attachment style.

While focusing attention to attachment styles may help make romantic dissolution a less difficult life event, it could also increase the likelihood that individuals select into

healthier, prosocial relationships in the first place. In addition to that strategy, however, there are alternative approaches to reducing unhealthy relationships and promoting healthy ones. For example, incorporating romantic relationship educational programs and mandatory courses into schools and various other institutional settings should prove beneficial. Of course many schools throughout the country already inform students of the pitfalls of physically or emotionally damaging relationships and how to get out of such situations, but a more general, pragmatic approach also has potential. It may be fruitful to educate youth about the general science underlying romantic love and relationship functioning. For many young men and women the idea of love often takes on a life of its own. Some beliefs about love and romance are unrealistic and place great weight and expectations on a relationship and its survival. That is not to say that idealism should be squashed entirely, but rather that a more practical, evidence-based perspective on relationships be promoted. As Frazier and Cook (1993, p.65) suggested, therapists who work with individuals who recently lost a relationship should explore “cognitions about the relationship and the breakup” and individuals’ “perceptions of alternative partners” to ensure they do not have unrealistic views about future relationships. Hence, it is probable that promoting reasonable perspective and expectations of romantic relationships could defend against the consequences that follow their dissolution.

Finally, in addition to aforementioned preventative and educational strategies, it is also imperative to have appropriate interventions and support services in place that can assist individuals who struggle with the dissolution of a romantic partnership. Findings from Chung and colleagues (2003) indicate that the post-traumatic stress symptoms that often follow romantic dissolution can endure for months after the event. Accordingly, it

is crucial that support services available to those navigating the aftermath of romantic loss are made known and readily accessible. There is of course no way to prevent romantic dissolution, especially during the instability of late adolescence and emerging adulthood, but acknowledging its consequences and effectively addressing them will help diminish the association between romantic dissolution and crime.

Given the findings of this study, the criminal justice system and its policymakers should also be cognizant of the ways that institutionalization and a criminal label may increase romantic instability. Recent attention to the consequences of incarceration has indicated that it is associated with divorce (Lopoo & Western, 2005; Massoglia, Remster, & King, 2011), especially for those without children (Apel et al., 2010). Massoglia and colleagues (2011) examined the mechanisms underlying this relationship and found that both separation and stigma are largely responsible for marital dissolution. In regard to separation, incarceration results in physical and emotional distance between romantic partners that disrupts the bond that existed prior to incarceration. Therefore, honest efforts that allow for the maintenance of a romantic partnership should prove beneficial. This could come in various forms, ranging from policies that embrace more flexible visitation policies to those that require states to forge more sensible relationships with telecommunication providers to those that take into consideration an individual's romantic status when making institutional placement decisions, especially in states where some prisons are placed in locations multiple hours away from where most prisoners come from (e.g. Michigan, New York, California, etc.). Furthermore, in line with this study's finding that romantic dissolution is particularly criminogenic when individuals are unemployed, it would seem that reconsidering policies that make the acquisition of

stable employment so difficult for returning offenders. If young men and women are able to support themselves financially it seems that the loss of a romantic partnership would not prove as impactful. Furthermore, being able to more easily obtain employment would likely offer individuals a more diverse, prosocial dating market that could reduce the chances of sorting processes leading them into an antisocial partnership.

In summary, there are a variety of approaches that can be taken when attempting to counteract the effect of romantic dissolution on crime. First, attention should be guided toward reducing the likelihood that individuals respond negatively to romantic dissolution, which research suggests has much to do with attachment style. Second, educational efforts and programs should be incorporated into curriculums nationwide, and should certainly be embraced by various other institutions that are in regular contact with at-risk youth. Third, responses to romantic dissolution should be readily accessible to young men and women given its consequences and how long they last. Finally, and importantly, the criminal justice system should make honest attempts to consider the impact that it has on romantic instability. Individuals and families would certainly benefit if the criminal justice system made conscious efforts to reduce its footprint on romantic relationships.

## STUDY LIMITATIONS

There are several limitations to the present study. These shortcomings fall into a three specific categories. First, there are potential issues that follow the measurement of romantic dissolution that was used. These various measurement shortcomings may result in the impact of romantic dissolution on crime being underestimated for this at-risk

sample. The second limitation of this study concerns the timing of romantic dissolution relative to changes in offending. The third and final limitation of this study is that there were few incidents of dissolution that involved the moderating variables of interests. The remainder of this section addresses each of these shortcomings in greater depth.

First, much is left to understand given both the measure of romantic dissolution that is used in this study and the lack of variables that provide insight into the nature of each occasion of romantic dissolution. The present study did not ask respondents about romantic dissolution specifically. That is, respondents were not asked whether they had experienced romantic dissolution and so the indicator of romantic dissolution is subjective rather than objective. Consequently, then, respondents were not asked about the nature of their relationship's dissolution either. Research has indicated that the negative consequences that commonly follow romantic dissolution largely depend on whether an individual is the "leaver" or the "left" (Frazier & Cook, 1993; Sprecher, 1994; see also Shackelford & Buss, 1997), perceives the availability of alternative romantic options (Frazier & Cook, 1993; Simpson, 1987), or is in love (Fisher, 2004, 2006). Any conclusion pertaining to the relationship between romantic dissolution and crime is imperfect without an understanding of these relationship dynamics. It is therefore pertinent that future research better capture the differences that are bound to influence how an individual responds romantic dissolution.

The second shortcoming of this study is that it is unable to effectively capture the timing of offending relative to the dissolution of a romantic relationship. The design used ensures that offending is measured during the same wave as romantic dissolution, but the issue is that waves are, on average, 6 or 12 months in length. As such, there is the

possibility of a time-ordering issue. Modeling waves that are 6 or 12 months in length leaves room for occasions of increased offending prior to the dissolution of a romantic relationship. Consequently, it could be that offending is not a consequence of romantic dissolution but rather a cause of it. Future research that attempts to further discern the impact of romantic dissolution on crime should focus attention to semi-annual, monthly, or even weekly life calendar data (Roberts & Horney, 2010; see also Averdijk et al., 2012; Felson et al., 2012).

Finally, it is important that the various moderators of romantic dissolution that were of interest in study be revisited with a sample that is not at-risk. Given the decline of marriage and rise of cohabitation among the general population it is essential that the dissolution of cohabitive relationships be examined with larger, more general samples. It could be that the relationship dynamics of non-offenders operate in a way that makes the dissolution of such relationships more risky. Relatedly, rather than focusing only on the moderating influence antisocial or violent relationships, future work in this area should also focus attention to the influence of alcohol and substance use on crime. Revisiting the questions addressed in the present study may reveal differences that are theoretically meaningful.

## FUTURE RESEARCH

In addition to addressing the limitations presented above, there are numerous other questions that should be examined in future research in this area. First, attention should be focused to the implications of various attachment styles on the impact of romantic dissolution. As discussed previously, efforts are already underway to understand

the relationship between insecure attachment and stalking, so future theorizing and empirical tests in this area should also emphasize criminal behavior as an outcome. Second, future research should consider romantic dissolution among at-risk males and females as a dependent variable. This approach would help identify individual characteristics and contextual factors that increase the probability of romantic dissolution. An understanding of these factors would benefit juvenile justice systems and personnel when developing programming efforts. Third, building on the present study's attention to cohabitation as a potential moderator of romantic dissolution, research should attempt to capture how the various motivations for cohabitive unions are associated with variation in offender behavior. Cohabitation occurs for a variety of reasons, with some arising as a precursor to marriage and others existing for purely financial reasons (Arnett, 2004). Indeed, some cohabiting unions are uncommitted while others involve high levels of commitment and sometimes even engagement. Clearly, then, a complete understanding of cohabitation's relationship with offending requires an understanding of why exactly individuals are involved in cohabiting relationships. Fourth, the present study examines romantic relationship instability on crime during emerging adulthood. Yet, romantic instability spans across the entire life course. Examining its impact at other life stages would provide a more comprehensive understanding of the generality of its effect. To be sure, the "timing" of romantic dissolution should be another moderating factor that receives attention in future studies. Fifth, it would be fruitful to use dyadic data to assess the implications of romantic dissolution. Measuring relationship dynamics using dyadic data could provide important insight into why the dissolution of some romantic partnerships is followed by increased criminal behavior. Understanding how individual

sentiments and perceptions of a relationship correspond and differ between romantic partners may provide valuable information about romantic dissolution. Sixth, and finally, future research efforts should examine the implications of romantic dissolution for criminal justice system personnel. Since romantic dissolution increases offending among the general population (Larson & Sweeten, 2012) and at-risk youth, it may be that police or correctional officers who experience romantic dissolution are more likely to engage in misconduct. Applying the same logic to incarcerated men and women may provide useful insight into whether romantic dissolution has an effect on inmate misconduct and other outcomes such as emotional and psychological health.

## CONCLUSION

Research on romantic relationships and crime over the past twenty years has focused the overwhelming bulk of its attention to the implications of *marital involvement*. This limited focus has neglected gradual but persistent movement away from marriage over the past fifty years, as well as the increasing instability of the relationship forms that have taken their place. The present study demonstrated that romantic dissolution during emerging adulthood is associated with notable increases to various forms of offending. Further, it offered preliminary evidence that indicates the effect of dissolution is more robust under certain relationship contexts and individual circumstances. In sum, the loss of a romantic relationship appears to be as consequential to offending as involvement in one. Future research must build upon the present effort if it is to move closer to a more comprehensive understanding of romance and crime over the life course. The various cultural and economic shifts that have led to the decline and delay of marriage in the



United States do not appear to be reversing course, so criminologists must use those trends to forecast the romantic relationships that will be most normative in the next decade. In the end, it is unlikely that such forecasting will result in a continued focus on marriage.

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TABLE 1.

**Table 1. List of 22-items used for offending variety scores**

Aggressive offenses	Income-based offenses
Purposely destroyed or damaged property	Entered or broken into a building to steal
Forced someone to have sex with you	Stolen something from a store
Killed someone	Bought, received, or sold something stolen
Shot someone	Used checks or credit cards illegally
Shot at someone	Stolen a car or motorcycle to keep or sell
Attacked and seriously harmed someone	Sold marijuana
Been in a fight	Sold other illegal drugs (coke, crack, heroine)
Threatened/attacked someone as part of gang	Carjacked someone
Purposely set a fire to house, car, etc.	Driven while you were drunk or high
Taken something by force with weapon	Been paid by someone to have sex
Taken something by force without weapon	Carried a gun

TABLE 2.

**Table 2. Summary Statistics (N = 1334; NT = 11,778)**

Variable Name	Full sample (NT=11,778)	Dissolution (NT = 2,927)	□	No dissolution (NT = 8,851)
<i>Outcomes</i>				
Total variety score	1.33 (2.34)	1.74 (2.72)	***	1.20 (2.19)
Aggressive variety score	.63 (1.15)	.78 (1.31)	***	.58 (1.09)
Income variety score	.55 (1.30)	.74 (1.52)	***	.48 (1.21)
<i>Relationship measures</i>				
No breakup-Single	36.60	---		48.46
No breakup-Steady	38.91	---		51.54
Breakup-Single	19.91	81.30		---
Breakup-Steady	4.59	18.70		---
Cohabitation	0.15	0.08	***	0.17
Importance of marriage	4.20 (1.23)	4.04 (1.33)	***	4.24 (1.19)
Likelihood of marriage	3.55 (1.24)	3.38 (1.28)	***	3.61 (1.22)
<i>Mechanism-Strain</i>				
Negative emotion index	.43 (.51)	.47 (.54)	***	.41 (.50)
<i>Mechanism-Peer exposure/influence</i>				
Routine activities	3.07 (.97)	3.22 (.95)	***	3.01 (.98)
Number of close friends	2.53 (2.25)	2.58 (2.31)		2.51 (2.23)
Peer antisocial behavior	1.72 (.79)	1.83 (.81)	***	1.69 (.78)
Peer antisocial influence	1.45 (.68)	1.53 (.73)	***	1.42 (.67)
<i>Justice system involvement</i>				
% of T <sub>2</sub> in facility	.33 (.42)	.29 (.40)	***	.34 (.43)
On probation	0.41	0.43	**	0.4
<i>Controls</i>				
Age	19.71 (2.33)	19.80 (2.30)	*	19.68 (2.34)
<i>Location</i>				
Philadelphia	50.35	24.78	***	75.22
Phoenix	49.65	17.86	***	82.14
<i>Race/ethnicity</i>				
White	20.56	20.41		79.59
Black	40.39	24.10	***	75.9
Hispanic	34.35	19.15	**	80.85
Other	4.70	18.84		81.16
Exposure time (months)	8.30 (3.09)	8.64 (3.14)	***	8.19 (3.07)
Has children	.30	.32	*	.30
Currently employed	.35	.32	***	.36
Currently in school	.33	.31	**	.34
Currently in gang	.09	.09		.09
Temperament	3.11 (.98)	3.06 (.85)	***	3.14 (.86)
Psychosocial maturity	3.19 (.47)	3.19 (.47)		3.19 (.47)
Future orientation	2.62 (.56)	2.63 (.55)		2.62 (.57)
Consideration of others	3.66 (.82)	3.67 (.82)		3.65 (.82)
Social costs of crime	3.15 (.93)	3.15 (.90)		3.15 (.94)
Social support	5.39 (2.78)	5.40 (2.75)		5.39 (2.79)

□ Group differences assessed using chi-square and t-tests

\*\*\* p &lt; .001, \*\* p &lt; .01, \* p &lt; .05

TABLE 3.

**Table 3. Fixed effects negative binomial models predicting total offending variety**

	(1) only controls				(2) strain				(3) peer influence				(4) full model			
	b	SE	IRR		b	SE	IRR		b	SE	IRR		b	SE	IRR	
<i>Relationship measures</i>																
No dissolution-Single (ref)	--	--		--	--	--		--	--	--		--	--		--	
No dissolution-Steady	0.18	0.04	1.20	***	0.18	0.04	1.20	***	0.16	0.03	1.17	***	0.15	0.03	1.16	***
Dissolution-Steady	0.35	0.06	1.42	***	0.33	0.06	1.39	***	0.28	0.05	1.32	***	0.27	0.05	1.31	***
Dissolution-Single	0.24	0.03	1.27	***	0.24	0.03	1.27	***	0.17	0.03	1.19	***	0.17	0.03	1.19	***
Cohabitation	-0.15	0.04	0.86	**	-0.15	0.04	0.86	***	-0.09	0.04	0.91	*	-0.09	0.04	0.91	*
Importance of marriage	0.02	0.01	1.02		0.01	0.01	1.01		0.02	0.01	0.01		0.02	0.01	0.01	
Likelihood of marriage	-0.05	0.01	0.95	**	-0.04	0.01	0.96	**	-0.04	0.01	0.96	**	-0.04	0.01	0.96	**
<i>Mechanism-Strain</i>																
Negative emotion index	--	--	--		0.26	0.03	1.30	***	--	--	--	--	0.16	0.03	1.17	***
<i>Mechanism-Peer influence</i>																
Routine activities	--	--	--	--	--	--	--	--	0.14	0.02	1.15	***	0.14	0.02	1.15	***
Number of close friends	--	--	--	--	--	--	--	--	0.03	0.01	1.03	***	0.03	0.00	1.03	***
Peer antisocial behavior	--	--	--	--	--	--	--	--	0.33	0.02	1.39	***	0.32	0.02	1.38	***
Peer antisocial influence	--	--	--	--	--	--	--	--	0.14	0.02	1.15	***	0.12	0.02	1.13	***
<i>Justice system involvement</i>																
% of T <sub>2</sub> in facility	-0.32	0.04	0.73	***	-0.34	0.04	0.71	***	-0.21	0.04	0.81	***	-0.22	0.04	0.80	***
On probation	0.15	0.03	1.16	***	0.15	0.03	1.16	***	0.09	0.03	1.09	**	0.09	0.03	1.09	***
<i>Controls</i>																
Age	-0.12	0.01	0.89	***	-0.12	0.01	0.89	***	-0.08	0.01	0.92	***	-0.08	0.01	0.92	***
Exposure time	0.09	0.01	1.09	***	0.09	0.01	1.09	***	0.07	0.01	1.07	***	0.07	0.01	1.07	***
Has children	-0.01	0.04	0.99		-0.02	0.04	0.98		0.02	0.04	1.02		0.02	0.04	1.02	
Currently employed	-0.27	0.03	0.76	***	-0.27	0.03	0.76	***	-0.25	0.03	0.78	***	-0.25	0.03	0.78	***



Currently in school	-0.03	0.03	0.97		-0.03	0.03	0.97		0.01	0.03	1.01		0.00	0.03	1.00	
Currently in gang	0.31	0.05	1.36	***	0.29	0.05	1.34	***	0.18	0.05	1.20	***	0.17	0.05	1.19	***
Temperament	-0.44	0.02	0.64	***	-0.41	0.02	0.66	***	-0.31	0.02	0.73	***	-0.29	0.02	0.75	***
Psychosocial maturity	-0.10	0.04	0.90	**	-0.03	0.04	0.97		-0.05	0.03	0.95		0.00	0.04	1.00	
Future orientation	-0.11	0.03	0.90	***	-0.12	0.03	0.89	***	-0.09	0.03	0.91	**	-0.10	0.03	0.90	***
Consideration of others	-0.09	0.02	0.91	***	-0.09	0.02	0.91	***	-0.07	0.02	0.93	***	-0.07	0.02	0.93	***
Social costs of crime	-0.03	0.02	0.97	*	-0.03	0.02	0.97	*	-0.02	0.02	0.98		-0.02	0.02	0.98	
Social support	0.03	0.01	1.03	***	0.01	0.01	1.01	***	0.02	0.01	1.02	**	0.02	0.01	1.02	**
Constant	4.25	0.23		***	3.83	0.23		***	1.88	0.24		***	1.67	0.24		***
Number of person years	NT=	10,973			NT=	10,973			NT=	10,973			NT=	10,973		
Number of persons	n =	1,197			n =	1,197			n =	1,197			n =	1,197		

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

TABLE 4.

**Table 4. Fixed effects negative binomial models predicting aggressive variety**

	(1) only controls				(2) strain				(3) peer influence				(4) full model			
	b	SE	IRR		b	SE	IRR		b	SE	IRR		b	SE	IRR	
<i>Relationship measures</i>																
No dissolution-Single (ref)	--	--		--	--	--		--	--	--		--	--	--		--
No dissolution-Steady	0.12	0.04	1.13	**	0.11	0.04	1.12	**	0.09	0.04	1.09	*	0.08	0.04	1.08	*
Dissolution-Steady	0.22	0.06	1.25	**	0.20	0.06	1.22	**	0.15	0.06	1.16	*	0.14	0.06	1.15	*
Dissolution-Single	0.17	0.04	1.19	***	0.17	0.04	1.19	***	0.10	0.04	1.11	**	0.10	0.04	1.11	**
Cohabitation	-0.14	0.05	0.87	**	-0.14	0.05	0.87	**	-0.10	0.05	0.90		-0.10	0.05	0.90	*
Importance of marriage	0.00	0.01	0.00		0.00	0.01	0.00		0.00	0.01	1.00		0.00	0.01	1.00	
Likelihood of marriage	-0.04	0.02	0.96	*	-0.03	0.02	0.97		-0.03	0.02	0.97	*	-0.03	0.01	0.97	
<i>Mechanism-Strain</i>																
Negative emotion index	--	--	--	--	0.26	0.03	1.30	***	--	--	--	--	0.18	0.03	1.20	***
<i>Mechanism-Peer influence</i>																
Routine activities	--	--	--	--	--	--	--	--	0.06	0.02	1.06	***	0.06	0.02	1.06	***
Number of close friends	--	--	--	--	--	--	--	--	0.02	0.01	1.02	***	0.03	0.01	1.03	***
Peer antisocial behavior	--	--	--	--	--	--	--	--	0.31	0.02	1.36	***	0.31	0.02	1.36	***
Peer antisocial influence	--	--	--	--	--	--	--	--	0.09	0.02	1.09	***	0.08	0.02	1.08	**
<i>Justice system involvement</i>																
% of T <sub>0</sub> in facility	0.01	0.04	1.01		-0.01	0.04	0.99		0.11	0.04	1.12	**	0.09	0.04	1.09	*
On probation	0.07	0.03	1.07	*	0.07	0.03	1.07		0.01	0.03	1.01		0.01	0.03	1.01	
<i>Controls</i>																
Age	-0.19	0.01	0.83	***	-0.19	0.01	0.83	***	-0.15	0.01	0.86	***	-0.15	0.01	0.86	***
Exposure time	0.10	0.01	1.11	***	0.10	0.01	1.11	***	0.08	0.01	1.08	***	0.08	0.01	1.08	***
Has children	0.03	0.05	1.03		0.02	0.05	1.02		0.06	0.05	1.06		0.05	0.05	1.05	
Currently employed	-0.25	0.03	0.78	***	-0.25	0.03	0.78	***	-0.24	0.03	0.79	***	-0.24	0.03	0.79	***

Currently in school	-0.03	0.03	0.97		-0.03	0.03	0.97		0.01	0.03	1.01		0.00	0.03	1.00	
Currently in gang	0.35	0.05	1.42	***	0.33	0.05	1.39	***	0.26	0.05	1.29	***	0.25	0.05	1.28	***
Temperament	-0.48	0.03	0.62	***	-0.45	0.03	0.64	***	-0.38	0.03	0.68	***	-0.35	0.03	0.70	***
Psychosocial maturity	-0.07	0.04	0.93		0.00	0.04	0.00		-0.02	0.04	0.98		0.03	0.04	1.03	
Future orientation	-0.07	0.03	0.93	*	-0.08	0.03	0.92	*	-0.05	0.03	0.95		-0.06	0.03	0.94	
Consideration of others	-0.07	0.02	0.93	**	-0.07	0.02	0.93	**	-0.06	0.02	0.94	**	0.02	0.02	1.02	*
Social costs of crime	-0.02	0.02	0.98		-0.02	0.02	0.98		-0.01	0.02	0.99		-0.01	0.02	0.99	
Social support	0.03	0.01	1.03	***	0.03	0.01	1.03	***	0.01	0.01	1.01	*	0.01	0.01	1.01	*
Constant	6.52	0.29		***	6.13	0.29		***	4.94	0.35		***	4.73	0.35		***
Number of person years	NT=	10,230			NT=	10,230			NT=	10,230			NT=	10,230		
Number of persons	n =	1,114			n =	1,114			n =	1,114			n =	1,114		

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

TABLE 5.

Table 5. Fixed effects negative binomial models predicting income variety

	(1) only controls				(2) strain				(3) peer influence				(4) full model			
	b	SE			b	SE			b	SE			b	SE		
<i>Relationship measures</i>																
No dissolution-Single (ref)	--	--			--	--			--	--			--	--		
No dissolution-Steady	0.21	0.05	1.23	***	0.20	0.05	1.22	***	0.18	0.05	1.20	***	0.18	0.05	1.20	***
Dissolution-Steady	0.44	0.08	1.55	***	0.41	0.08	1.51	***	0.36	0.08	1.43	***	0.35	0.08	1.42	***
Dissolution-Single	0.28	0.05	1.32	***	0.27	0.05	1.31	***	0.18	5.00	1.20	***	0.18	0.05	1.20	***
Cohabitation	-0.15	0.06	0.86	*	-0.15	0.06	1.28	*	-0.09	0.06	0.91		-0.10	0.06	0.90	
Importance of marriage	0.00	0.02	1.00		-0.01	0.02	0.99		0.00	0.02	1.00		0.00	0.02	0.00	
Likelihood of marriage	-0.02	0.02	0.98		-0.02	0.02	0.98		-0.02	0.02	0.98			0.02	0.98	
<i>Mechanism-Strain</i>																
Negative emotion index	--	--	--	--	0.25	0.04	1.28	***	--	--	--	--	0.13	0.04	1.14	**
<i>Mechanism-Peer influence</i>																
Routine activities	--	--	--	--	--	--	--	--	0.16	0.02	1.17	***	0.16	0.02	1.17	***
Number of close friends	--	--	--	--	--	--	--	--	0.04	0.01	1.04	***	0.04	0.01	1.04	***
Peer antisocial behavior	--	--	--	--	--	--	--	--	0.39	0.03	1.48	***	0.38	0.03	1.46	***
Peer antisocial influence	--	--	--	--	--	--	--	--	0.18	0.03	1.20	***	0.17	0.03	1.19	***
<i>Justice system involvement</i>																
% of T <sub>0</sub> in facility	-0.60	0.05	0.55	***	-0.61	0.06	0.54	***	-0.41	0.06	0.66	***	-0.42	0.06	0.66	***
On probation	0.25	0.04	1.28	***	0.25	0.04	1.28	***	0.17	0.04	1.18	***	0.17	0.04	1.19	***
<i>Controls</i>																
Age	-0.10	2.00	0.90	***	-0.10	0.02	0.90	***	-0.06	0.02	0.94	***	-0.06	0.02	0.94	***
Exposure time	0.09	0.01	1.09	***	0.09	0.01	1.09	***	0.07	0.01	1.07	***	0.07	0.01	1.07	***
Has children	0.02	0.06	1.02		0.01	0.06	1.01		0.06	0.06	1.06		0.05	0.06	1.05	
Currently employed	-0.44	0.04	0.64	***	-0.43	0.04	0.65	***	-0.40	0.04	0.67	***	-0.40	0.04	0.67	***

Currently in school	-0.05	0.05	0.95		-0.05	0.05	0.95		-0.01	0.04	0.99		-0.01	0.04	0.99	
Currently in gang	0.41	0.07	1.51	***	0.39	0.07	1.48	***	0.25	0.06	1.28	***	0.24	0.06	1.26	***
Temperament	-0.49	0.03	0.61	***	-0.46	0.03	0.63	***	-0.31	0.03	0.73	***	-0.30	0.03	0.74	***
Psychosocial maturity	-0.22	0.05	0.80	***	-0.13	0.05	0.88	*	-0.15	0.05	0.86	**	-0.11	0.05	0.90	*
Future orientation	-0.15	0.04	0.86	***	-0.17	0.04	0.84	***	-0.12	0.04	0.89	**	-0.13	0.04	0.88	**
Consideration of others	-0.14	0.03	0.87	***	-0.14	0.03	0.87	***	-0.11	0.03	0.89	***	-0.11	0.03	0.90	***
Social costs of crime	-0.02	0.02	0.98		-0.02	0.02	0.98		-0.01	0.02	0.99		-0.01	0.02	0.99	
Social support	0.03	0.01	1.03	***	0.03	0.01	1.03	***	0.01	0.01	1.01		0.01	0.01	1.01	
Constant	4.35	0.33		***	3.88	0.34		***	1.20	0.35		***	1.00	0.36		**
Number of person years	NT =	8,299			NT =	8,299			NT =	8,299			NT =	8,299		
Number of persons	n =	906			n =	906			n =	906			n =	906		

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

TABLE 6.

**Table 6. Comparison of results across all fixed effects negative binomial models**

	only controls			strain			peer exposure			full model						
	b	SE	IRR	b	SE	IRR	b	SE	IRR	b	SE	IRR				
<b>Total variety score</b>																
No dissolution-																
Steady	0.18	0.04	1.20	***	0.18	0.04	1.20	***	0.16	0.03	1.17	***	0.15	0.03	1.16	***
Dissolution-Steady	0.35	0.06	1.42	***	0.33	0.06	1.39	***	0.28	0.05	1.32	***	0.27	0.05	1.31	***
Dissolution-Single	0.24	0.03	1.27	***	0.24	0.03	1.27	***	0.17	0.03	1.19	***	0.17	0.03	1.19	***
<b>Aggressive variety score</b>																
No dissolution-																
Steady	0.12	0.04	1.13	**	0.11	0.04	1.12	**	0.09	0.04	1.09	*	0.08	0.04	1.08	*
Dissolution-Steady	0.22	0.06	1.25	**	0.20	0.06	1.22	**	0.15	0.06	1.16	*	0.14	0.06	1.15	*
Dissolution-Single	0.17	0.04	1.19	***	0.17	0.04	1.19	***	0.10	0.04	1.11	**	0.10	0.04	1.11	**
<b>Income variety score</b>																
No dissolution-																
Steady	0.21	0.05	1.23	***	0.20	0.05	1.22	***	0.18	0.05	1.20	***	0.18	0.05	1.20	***
Dissolution-Steady	0.44	0.08	1.55	***	0.41	0.08	1.51	***	0.36	0.08	1.43	***	0.35	0.08	1.42	***
Dissolution-Single	0.28	0.05	1.32	***	0.27	0.05	1.31	***	0.18	5.00	1.20	***	0.18	0.05	1.20	***

\*\*\* p &lt; .001, \*\* p &lt; .01, \* p &lt; .05

TABLE 7.

**Table 7. Summary Statistics (N = 1,233; NT = 4,407)**

Variable Name	Full sample (NT=4,407)	Dissolution (NT = 943)	□	No dissolution (NT = 3,464)
<i>Outcome</i>				
Total offending variety	1.23 (2.19)	1.54 (2.45)	***	1.15 (2.10)
<i>Relationship measures</i>				
Steady relationship	.46	---		---
Romantic dissolution	.21	---		---
<i>Moderating measures</i>				
Cohabitation	.22	.15	***	.23
Antisocial partner	.36	.41	***	.33
Victim-physical violence	.13	.23	***	.11
Victim-emotional violence	.26	.34	***	.24
Currently employed	.42	.38	**	.43
<i>Mechanism measures</i>				
Negative emotion index	.39 (.49)	.42 (.02)		.38 (.01)
Routine activities	2.90 (.95)	3.06 (.03)	***	2.85 (.02)
Number of close friends	2.00 (1.99)	2.10 (.07)		1.98 (.03)
Peer antisocial behavior	1.68 (.75)	1.77 (.03)	***	1.66 (.01)
Peer antisocial influence	1.44 (.67)	1.53 (.02)	***	1.42 (.01)
<i>Justice system involvement</i>				
% of T□ in facility	.29 (.40)	.27 (.38)		.30 (.41)
On probation	.26 (.44)	.30	**	.26
Exposure time (months)	12.00 (.99)	12.06 (1.00)	**	11.98 (.99)
<i>Controls</i>				
Age	21.93 (1.58)	21.83 (1.57)	*	21.97 (1.57)
<i>Location</i>				
Philadelphia	50.35	54.25		49.53
Phoenix	49.65	44.75		50.47
<i>Race/ethnicity</i>				
White	20.56	17.02		18.17
Black	40.39	46.24		35.58
Hispanic	34.35	34.16		41.14
Other	4.70	2.60		5.12
Has children	.44 (.49)	.46		.43
Currently in school	.13 (.33)	.12		.13
Currently in gang	.07 (.25)	.06		.07
Temperament	3.21 (.85)	3.15 (.85)	*	3.23 (.85)
Psychosocial maturity	3.27 (.44)	3.27 (.44)		3.27 (.44)
Future orientation	2.68 (.55)	2.68 (.53)		2.68 (.55)
Consideration of others	3.76 (.78)	3.76 (.79)		3.76 (.78)
Social costs of crime	3.30 (.93)	3.32 (.87)		3.29 (.94)
Social support	4.95 (3.03)	5.02 (2.97)		4.93 (3.05)

□ Group differences assessed using chi-square and t-tests

\*\*\* p &lt; .001, \*\* p &lt; .01, \* p &lt; .05

TABLE 8.

**Table 8. Fixed effects model predicting total offending variety**

	b	SE	IRR	Sig
<i>Relationship measures</i>				
Steady relationship	0.17	0.07	1.19	*
Romantic dissolution	0.21	0.07	1.23	**
<i>Mechanism measures</i>				
Negative emotion index	0.11	0.05	1.12	*
Routine activities	0.17	0.03	1.19	***
Number of close friends	0.04	0.01	1.04	**
Peer antisocial behavior	0.24	0.04	1.27	***
Peer antisocial influence	0.14	0.04	1.15	**
<i>Justice system involvement</i>				
% of T <sub>2</sub> in facility	-0.21	0.09	0.81	*
On probation	0.06	0.05	1.06	
<i>Controls</i>				
Age	-0.03	0.02	0.97	
Exposure time	0.04	0.02	1.04	*
Has children	-0.08	0.08	0.92	
Currently in school	-0.01	0.07	0.99	
Currently in gang	0.30	0.11	1.35	**
Temperament	-0.34	0.05	0.71	***
Psychosocial maturity	0.01	0.07	1.01	
Future orientation	-0.09	0.06	0.91	
Consideration of others	-0.13	0.04	0.88	***
Social costs of crime	0.00	0.03	1.00	
Social support	0.02	0.01	1.02	
Constant	1.21	0.55	---	*
Number of person yrs	NT=	3,171		
Number of persons	n=	854		

\*\*\* p &lt; .001, \*\* p &lt; .01, \* p &lt; .05



TABLE 9.

**Table 9. Total offending variety by relationship context (NT = 3,171)**

	b	SE	IRR	Sig
<i>Model #2</i>				
No dissolution - no cohabitation	-	-	-	
No dissolution - cohabitation	-0.19	0.08	0.83	
Dissolution - no cohabitation	0.21	0.07	1.23	**
Dissolution - cohabitation	0.15	0.12	1.16	
<i>Model #3</i>				
No dissolution - no antisocial partner	-	-	-	
No dissolution - antisocial partner	0.34	0.07	1.40	***
Dissolution - no antisocial partner	-0.02	0.08	0.98	
Dissolution - antisocial partner	0.48	0.08	1.62	***
<i>Model #4</i>				
No dissolution - no physical violence	-	-	-	
No dissolution - physical violence	0.21	0.08	1.23	**
Dissolution - no physical violence	0.13	0.07	1.14	
Dissolution - physical violence	0.45	0.09	1.57	***
<i>Model #5</i>				
No dissolution - no emotional violence	-	-	-	
No dissolution - emotional violence	0.25	0.07	1.28	***
Dissolution - no emotional violence	0.10	0.08	1.11	
Dissolution - emotional violence	0.41	0.08	1.50	***
<i>Model #6</i>				
No dissolution - not currently employed	-	-	-	
No dissolution - currently employed	-0.22	0.06	0.80	***
Dissolution - not currently employed	0.24	0.07	1.27	**
Dissolution - currently employed	-0.05	0.10	0.95	

\*\*\* p &lt; .001, \*\* p &lt; .01, \* p &lt; .05

APPENDIX A

[MODERATING IMPACT OF COHABITATION]

**Appendix A. Moderating effect of cohabitation**

	b	SE	IRR	Sig
<i>Relationship measures</i>				
No dissolution - no cohabitation	-	-	-	
No dissolution - cohabitation	-0.19	0.08	0.83	
Dissolution - no cohabitation	0.21	0.07	1.23	**
Dissolution - cohabitation	0.15	0.12	1.16	
<i>Mechanism measures</i>				
Negative emotion index	0.09	0.05	1.09	
Routine activities	0.15	0.03	1.16	***
Number of close friends	0.04	0.01	1.04	**
Peer antisocial behavior	0.23	0.04	1.26	***
Peer antisocial influence	0.15	0.04	1.16	***
<i>Justice system involvement</i>				
% of T <sub>2</sub> in facility	-0.24	0.09	0.79	**
On probation	0.05	0.05	1.05	
<i>Controls</i>				
Age	-0.03	0.02	0.97	
Exposure time	0.04	0.02	1.04	*
Has children	-0.05	0.08	0.95	
Currently employed	-0.24	0.05	0.79	***
Currently in school	-0.04	0.07	0.96	
Currently in gang	0.28	0.11	1.32	
Temperament	-0.35	0.05	0.70	*
Psychosocial maturity	0.04	0.07	1.04	***
Future orientation	-0.09	0.06	0.91	
Consideration of others	-0.13	0.04	0.88	**
Social costs of crime	0.01	0.03	1.01	
Social support	0.02	0.01	1.02	*
Constant	1.20	0.55	-	*
Number of person years	NT=	3,171		
Number of persons	N=	854		

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

APPENDIX B

[MODERATING IMPACT OF AN ANTISOCIAL PARTNERSHIP]

**Appendix B. Moderating effect of antisocial partnership**

	b	SE	IRR	Sig
<i>Relationship measures</i>				
No dissolution - no antisocial partner	-	-	-	
No dissolution - antisocial partner	0.34	0.07	1.40	***
Dissolution - no antisocial partner	-0.02	0.08	0.98	
Dissolution - antisocial partner	0.48	0.08	1.62	***
<i>Mechanism measures</i>				
Negative emotion index	0.09	0.05	1.09	
Routine activities	0.16	0.03	1.17	***
Number of close friends	0.04	0.01	1.04	**
Peer antisocial behavior	0.22	0.04	1.24	***
Peer antisocial influence	0.15	0.04	1.16	***
<i>Justice system involvement</i>				
% of T <sub>0</sub> in facility	-0.17	0.08	0.84	*
On probation	0.06	0.05	1.06	
<i>Controls</i>				
Age	-0.04	0.02	0.96	*
Exposure time	0.03	0.02	0.79	
Has children	-0.04	0.08	0.96	
Currently employed	-0.24	0.05	0.79	***
Currently in school	-0.06	0.07	0.94	
Currently in gang	0.28	0.11	1.32	*
Temperament	-0.35	0.05	0.70	***
Psychosocial maturity	0.02	0.07	1.02	
Future orientation	-0.08	0.06	0.92	
Consideration of others	-0.12	0.04	0.89	**
Social costs of crime	0.00	0.03	1.00	
Social support	0.01	0.01	1.01	
Constant	1.70	0.55	-	**
Number of person years	NT=	3,171		
Number of persons	N=	854		

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

APPENDIX C

[MODERATING IMPACT OF PHYSICAL VICTIMIZATION]

**Appendix C. Moderating effect of physical violence**

	b	SE	IRR	Sig
<i>Relationship measures</i>				
No dissolution - no physical violence	-	-	-	
No dissolution - physical violence	0.21	0.08	1.23	**
Dissolution - no physical violence	0.13	0.07	1.14	
Dissolution - physical violence	0.45	0.09	1.57	***
<i>Mechanism measures</i>				
Negative emotion index	0.08	0.05	1.08	
Routine activities	0.16	0.03	1.17	***
Number of close friends	0.04	0.01	1.04	**
Peer antisocial behavior	0.24	0.04	1.27	***
Peer antisocial influence	0.15	0.04	1.16	**
<i>Justice system involvement</i>				
% of T <sub>0</sub> in facility	-0.15	0.09	0.86	
On probation	0.04	0.05	1.04	
<i>Controls</i>				
Age	-0.03	0.02	0.97	
Exposure time	0.04	0.02	1.04	
Has children	-0.07	0.08	0.93	
Currently employed	-0.23	0.05	0.79	***
Currently in school	-0.02	0.07	0.98	
Currently in gang	0.28	0.11	1.32	*
Temperament	-0.34	0.05	0.71	***
Psychosocial maturity	0.03	0.07	1.03	
Future orientation	-0.08	0.06	0.92	
Consideration of others	-0.12	0.04	0.89	**
Social costs of crime	0.01	0.03	1.01	
Social support	0.02	0.01	1.02	
Constant	1.20	0.55	-	*
Number of person years	NT=	3,171		
Number of persons	N=	854		

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

APPENDIX D

[MODERATING IMPACT OF EMOTIONAL VICTIMIZATION]



**Appendix D. Moderating effect of emotional violence**

	b	SE	IRR	Sig
<i>Relationship measures</i>				
No dissolution - no emotional violence	-	-	-	
No dissolution - emotional violence	0.25	0.07	1.28	***
Dissolution - no emotional violence	0.10	0.08	1.11	
Dissolution - emotional violence	0.41	0.08	1.50	***
<i>Mechanism measures</i>				
Negative emotion index	0.07	0.05	1.07	
Routine activities	0.15	0.03	1.16	***
Number of close friends	0.04	0.01	1.04	**
Peer antisocial behavior	0.24	0.04	1.27	***
Peer antisocial influence	0.15	0.04	1.16	***
<i>Justice system involvement</i>				
% of T <sub>2</sub> in facility	-0.14	0.09	0.87	
On probation	0.05	0.05	1.05	
<i>Controls</i>				
Age	-0.03	0.02	0.97	
Exposure time	0.04	0.02	1.04	*
Has children	-0.08	0.08	0.92	
Currently employed	-0.24	0.05	0.79	***
Currently in school	-0.03	0.07	0.97	
Currently in gang	0.26	0.11	1.30	*
Temperament	-0.35	0.05	0.70	***
Psychosocial maturity	0.04	0.07	1.04	
Future orientation	-0.08	0.06	0.92	
Consideration of others	-0.12	0.04	0.89	**
Social costs of crime	0.01	0.03	1.01	
Social support	0.01	0.01	1.01	
Constant	1.18	0.56	-	*
Number of person years	NT=	3,171		
Number of persons	N=	854		

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

APPENDIX E

[MODERATING IMPACT OF UNEMPLOYMENT]

**Appendix E. Moderating effect of employment**

	b	SE	IRR	Sig
<i>Relationship measures</i>				
No dissolution - not currently employed	-	-	-	
No dissolution - currently employed	-0.22	0.06	0.80	***
Dissolution - not currently employed	0.24	0.07	1.27	**
Dissolution - currently employed	-0.05	0.10	0.95	
<i>Mechanism measures</i>				
Negative emotion index	0.07	0.05	1.07	
Routine activities	0.15	0.03	1.16	***
Number of close friends	0.04	0.01	1.04	**
Peer antisocial behavior	0.24	0.04	1.27	***
Peer antisocial influence	0.15	0.04	1.16	***
<i>Justice system involvement</i>				
% of T <sub>0</sub> in facility	-0.14	0.09	0.87	
On probation	0.05	0.05	1.05	
<i>Controls</i>				
Age	-0.03	0.02	0.97	
Exposure time	0.04	0.02	1.04	
Has children	-0.08	0.08	0.92	
Currently in school	-0.03	0.05	0.97	
Currently in gang	0.26	0.08	1.30	*
Temperament	-0.35	0.11	0.70	***
Psychosocial maturity	0.04	0.05	1.04	
Future orientation	-0.08	0.07	0.92	
Consideration of others	-0.12	0.11	0.89	**
Social costs of crime	0.01	0.03	1.01	
Social support	0.01	0.01	1.01	
Constant	1.18	0.55	-	*
Number of person years	NT=	3,171		
Number of persons	N=	854		

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