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SHIFTING PERSPECTIVES: COGNITIVE CHANGES PARTIALLY MEDIATE THE IMPACT OF ROMANTIC RELATIONSHIPS ON DESISTANCE FROM CRIME

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Abstract

Although research regarding the impact of marriage on desistance is important, most romantic relationships during early adulthoood, the period in the life course when involvement in criminal offending is relatively high, do not involve marriage. Using the internal moderator approach, we tested hypotheses regarding the impact of non-marital romantic relationships on desistance using longitudinal data from a sample of approximately 600 African American young adults. The results largely supported the study hypotheses. We found no significant association between simply being in a romantic relationship and desistance from offending. On the other hand, for both males and females quality of romantic relationship was rather strongly associated with desistance. Partner antisociality only influenced the offending of females. Much of the effect of quality of romantic relationship on desistance was mediated by a reduction in commitment to a criminogenic knowledge structure (a hostile view of people and relationships, concern with immediate gratification, and cynical view of conduct norms). The mediating effect of change in affiliation with deviant peers was not significant once the contribution of criminogenic knowledge structure was taken into account. The findings are discussed in terms of social control and cognitive accounts of the mechanisms whereby romantic relationships influence desistance.

In recent years, a growing body of research has investigated the extent to which adult role transitions such as marriage, employment, and military service are related to desistance from criminal behavior (Blokland and Nieuwbeerta, 2005; Laub and Sampson, 2003, Sampson and Laub, 1993; Savolainen, 2009; Uggen, 2000). Of these various role transitions, marriage has been shown to produce the most consistent and robust reduction in crime (Laub and Sampson, 1995, 2003; Sampson, Laub, and Wimer, 2006). At least for males, this effect has been found in several countries and across cohorts and types of crime (Bersani, Laub, and Nieuwbeerta, 2008; Savolainen, 2009). The findings for women, however, are less consistent; some studies find an effect (e.g., Bersani et al., 2008, Levenentz, 2006) whereas others do not (King, Massoglia, and MacMillan, 2007).

Although research regarding the impact of marriage on desistance is important, it tells us nothing about the consequences of romantic relationships that do not involve marriage.

Marriage has become much less prevalent in the past few decades as increasingly individuals delay marriage or choose not to marry at all (Booth, Crouter, and Shanahan, 1999; Seltzer, 2000). The proportion of adults who are married has declined from 72% in 1960 to 51% (31% for African Americans) in 2010 (Pew Research Center, 2011). Half a century ago, nearly 60% of 18 to 29 year-olds were married, whereas in 2010 this figure was only 20% (Pew Research Center, 2011). These trends are especially evident in economically distressed African American communities (Goldstein & Kinney, 2001; Clayton, Mincy, & Blankenhorn, 2003) where high levels of unemployment and incarceration discourage marriage (Lopoo and Western, 2005; Pettit & Western, 2004; Western, 2006). Thus during early adulthood, the period in the life course when involvement in criminal and deviant behavior is relatively high, most romantic relationships do not involve marriage. This being the case, it is crucial that researchers devote attention to the role of non-marital romantic relationships in desistance from offending (Giordano, Schroeder, and Cernkovich, 2007; Leverentz, 2010). In the present study, we argue that it is quality of relationship, rather than simply being in a romantic relationship, that is likely to impact desistance.

Further, we go beyond past research by investigating the mechanisms whereby romantic relationships produce a desistance effect. We focus upon two potential avenues. First, building upon the research of Warr (1998), we examine the extent to which romantic relationships foster a decrease in offending by reducing affiliation with deviant peers. Second, we analyze the extent to which cognitive transformations mediate the impact of romantic relationships upon crime (Giordano et al., 2007). Recently, Simons and Burt (2011) provided evidence for a criminogenic knowledge structure consisting of three social schemas: a hostile view of relationships, concern with immediate rewards, and a cynical view of conventional norms. They suggest that social factors that have been linked to desistance from crime, such as romantic relationships, produce their effect by altering commitment to these cognitive schemas. We test this idea, as well as the other study hypotheses, using longitudinal data from a sample of approximately 600 African American young adults.

THE EFFECT OF BEING IN A RELATIONSHIP VERSUS RELATIONSHIP QUALITY

Early research regarding the effect of marriage on desistance emphasized the quality of the marital bond (Horney, Osgood, and Marshall, 1995; Laub, Nagin, and Sampson, 1998; Sampson and Laub, 1993). The mere existence of a marital relationship was not seen as sufficient for desistance; rather, relationship satisfaction and commitment were seen to be the necessary ingredients for fostering a reduction in crime. Later work moved away from this position and investigated the state of being married without taking into account quality of the relationship (Bersani, Laub, and Nieuwbeerta, 2008; King et al., 2007; Laub and Sampson, 2003; Savolainen, 2009). Although these studies found that marriage is associated with a rather robust decline in crime, in most cases the analyses did not consider the effect of marital quality. However, a recent study that included a measure of marital quality reported that even after controlling for this variable, marriage was associated with a substantial reduction in criminal behavior (Sampson and Laub, 2006).

Based on these findings, most researchers now take the stance that marriage tends to foster desistance regardless of relationship quality, with this reduction likely being a consequence of the change in identity and routine activities that accompany marriage (Laub and Sampson, 2003; Sampson and Laub, 2006). Although marriage may have an effect on desistance that is independent of marital quality, we expect that relationship quality is an essential consideration when the focus shifts to non-marital romantic relationships. There are two reasons for believing that this is the case.

First, whereas marriage entails a formal status transition that might be expected to impact a person's identity, the same is not the case for romantic relationships more generally. Marriage entails taking on the socially recognized role of either husband or wife whereas non-marital romantic relationships involve more ambiguous statuses such as romantic partner or boyfriend/girlfriend. Further, while marriage involves a formal commitment that might be expected to foster movement toward a conventional identity (Bersani et al., 2008; Laub and Sampson, 2003; Sampson and Laub, 2006; Savolaninen, 2009), this is not the case for non-marital romantic relationships. Identity theory posits, however, that a relationship becomes central to a person's identity to the extent that that it involves strong emotional attachment and a high level of reward (McCall and Simmons, 1978; Stryker, 1980; Burke and Stets, 2008). This suggests that emotionally fulfilling non-marital romantic relationships may encourage adoption of a more conventional identity, with the result being a reduction in crime. Thus while the institution of marriage may foster a more conventional identity regardless of relationship quality, only highly gratifying non-marital romantic relationships would be expected to produce this effect.

The second reason for stressing the importance of relationship quality in non-marital romantic relationships relates to the issue of influence. In part, marital relationships are thought to promote desistance because spouses monitor and exercise influence over their antisocial partners (Laub and Sampson, 2003; Sampson and Laub, 2006). Indeed, a spouse's right to exercise some degree of influence over their partner is considered to be a component of the institution of marriage. This is not the case for non-marital romantic relationships. Social exchange theory (Homans, 1974; Emerson, 1976) would argue that in the latter a person's ability to exercise influence is strictly a function of the degree to which their partner values or is dependent on the relationship. 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.

Based upon these considerations, we expect that the simple fact of being in a romantic relationship has no impact upon desistance. There is great variability in the quality of romantic relationships. Some are characterized by high levels of warmth and support whereas others are filled with disagreement and acrimony. Research on African American teens and young adults, for example, indicates that their romantic relationships are often fractious, antagonistic, and unstable (Anderson, 1990, 1999; Kurdeck, 2008; Simons et al., 2011; Wilson, 2003). We can think of no mechanisms whereby such relationships would foster a reduction in deviant behavior. Romantic relationships that are largely warm and supportive, on the other hand, have the ingredients necessary to promote desistance. In contrast to those riddled with conflict, supportive relationships are likely to promote

conventional identities and the ability to exercise influence. These social psychological processes should operate regardless of gender. Hence we expect that quality of romantic relationship predicts desistance from crime for both males and females.

The limited research on non-marital romantic relationships largely supports this prediction. McCarthy and Casey (2008) found that being in a romantic relationship had no impact on delinquent behavior for either males or females, but that reports of "being in love" strongly predicted reduced involvement in delinquency. Similarly, Giordano, Schroeder, and Cernkovich (2007) found that having an intimate relationship (some were married and others were not) had no significant effect on change in crime whereas "happiness" with the relationship had a significant moderating effect. Most studies, however, have utilized samples of individuals all of whom are in romantic relationships. They examined the effect of relationship quality on desistance, but could not address the issue of whether simply being in a relationship fosters desistance. Simons, Stewart, Gordon, Conger, and Elder (2002) found that quality of romantic relationship was associated with a reduction in crime for both males and females. Similarly, Capaldi, Kim, and Own (2008) found that stability of relationship (an indirect measure of relationship quality) predicted a decreased likelihood of arrest in their sample of young adult males. Finally, Giordano, Lonardo, Manning, and Longmore (2010) examined the extent to which various dimensions of adolescent romantic relationships are associated with delinquency. Their results indicated that delinquency is unrelated to reports of importance, self-disclosure, attraction to the partner, or duration of the relationship. There was, however, a significant association between delinquency and verbal conflict.

Thus, with the exception of the mixed results reported by Giordano et al. (2010), the meager evidence that exists supports the idea that non-marital romantic relationships reduce criminal involvement for both males and females, but simply being in a romantic relationship does not. We expect to find a similar pattern of findings in our sample of African Americans. Importantly, we will examine the effect of relationship quality while controlling for partner antisocial behavior. Although relationship quality and partner antisocial behavior are likely to be inversely correlated, most studies do not control for partner antisociality and hence may have overestimated the effect of relationship quality (Rhule-Louie and McMahon, 2007).

MECHANISMS THAT LINK ROMANTIC RELATIONSHIPS TO DESISTANCE DECLINCE IN AFFILIATION WITH DEVIANT PEERS

Given the strong evidence of a link between marriage and desistance, there has been much speculation about the mechanisms whereby marriage fosters this effect. Researchers have suggested that marriage entails new obligations, family centered activities, and other lifestyle changes that operate as informal social controls (Laub and Sampson, 2003; Sampson et al., 2006). Unfortunately, these ideas have proven difficult to test given the limitations of most data sets (Rhule-Louie and McMahon, 2007). One factor that has received some attention, however, is the extent to which marriage furthers a change in friendship networks. Perhaps the strongest predictor of crime is unstructured time spent with deviant peers (Elliott, 1993; Elliott and Menard, 1996), and discontinuing affiliation with

deviant friends is one of the best predictors of desistance (Knight and West, 1975; Warr, 1993). Importantly, marriage entails numerous obligations that might be expected to decrease the time spent with deviant friends. Consistent with this idea, Warr (1998) found that marriage tends to be followed by a decline in time spend with friends and in exposure to deviant peer groups. Indeed, in his analysis the effect of marriage was almost completely mediated by decreased involvement with deviant peers.

We imagine that a similar process operates for non-marital romantic relationships. As noted earlier, we expect that quality of romantic relationship predicts desistance from crime. A large amount of experimental evidence supports the matching law idea that the amount of time that a person spends in an activity or situation is proportional to the amount of reinforcement derived from that activity compared with reinforcement available from alternative activities (Simons and Conger, 1997). This principle suggests that if two people are highly attracted to the rewards provided by their romantic relationship, they will find the reinforcement provided by deviant friends to be less inviting. Findings reported by Warr (1998) provide support for this view. Although his study focused on married couples, he found that quality of the marital relationship was inversely related to affiliation with deviant friends.

CHANGE IN CRIMINAL PROPENSITY

Although friendship changes may be one avenue whereby romantic relationships foster desistance, some researchers have suggested that psychological transformations may play an even more important role (Giordano et al. 2002, 2007; Leverentz, 2006; Maruna, 2001 Shover, 1996). These theorists argue that romantic relationships provide experiences that operate over time to correct the thought processes associated with criminal propensity. Testing this idea requires that one identify the important elements of criminal propensity. Many studies of the etiology of crime limit their definition of criminal propensity to low self-control (i.e. a strong preference for immediate over delayed gratification). Although there is strong evidence that low self-control predicts offending (Pratt and Cullen, 2000), Wikström (2010; Wikström and Treiber, 2007), in keeping with Hirschi's (1969) social control theory, has argued that low commitment to conventional morality is another important component of criminal propensity. Based on this assumption, he and his colleagues (Wikström, Ceccato, Harkie, and Treiber, 2010) have utilized a composite measure of criminal propensity that combines low self-control and low commitment to conventional morality to predict criminal behavior.

Recently, Simons and Burt (2011) have contended that criminal propensity involves yet a third cognitive characteristic – a hostile view of people and relationships. They note that a profusion of research (Dodge, 2006), including a meta analysis of over 100 studies (Orbio de Castro et al., 2002), indicates that offenders tend to distrust others and believe that they must project an aggressive image in order to avoid exploitation. Thus Simons and Burt (2011) assert that criminal propensity consists of three psychological traits: pursuit of immediate rewards, cynicism regarding conventional morality, and a hostile view of people and relationships. Further, they argue that these characteristics are interrelated and interconnected due to the fact that they are rooted in the same set of social conditions and

are mutually reinforcing. They assert that these three schemas act in concert and combine to form a criminogenic knowledge structure that gives rise to situational definitions legitimating criminal offending. Consistent with these predictions, their findings indicated that the three traits are highly intercorrelated and combine to form a latent construct. This latent variable strongly predicted increases in crime and completely mediated the effect of adverse social conditions such as criminal victimization, discrimination, harsh parenting, affiliation with deviant peers, and low neighborhood collective efficacy on criminal offending.

Simons and Burt (2011) go on to suggest that the various social factors that have been linked to desistance from crime, such as employment or romantic relationships, produce their effect by moderating commitment to the criminogenic knowledge structure. In contrast to the many adverse situations the offender has experienced in the past, these remedial factors are seen as reducing deviant behavior because they foster a more benign, predictable view of social life, thereby diminishing adherence to the criminogenic knowledge structure. More specifically, it is their contention that a caring romantic relationship leads antisocial persons to develop a more trusting view of others, to substitute long-term rewards for immediate gratification, and to acquire an appreciation for conventional conduct norms. It is these psychological changes, they argue, that mediate the impact of romantic relationships on desistance. This idea is tested in the present study.

HYPOTHESES

Summarizing the arguments made in the previous sections, we will test the following hypotheses:

- 1. Quality of romantic relationship will be related to desistance from crime. No association is expected, however, between simply being in a romantic relationship and desistance from crime.
- **2.** Changes in affiliation with deviant peers will explain a significant proportion of the effect of quality of romantic relationship on desistance from crime.
- 3. Changes in commitment to the criminogenic knowledge structure (viz., hostile view of relationships, concern with immediate rewards, cynical view of conventional norms) will explain a significant proportion of the effect of quality of romantic relationship on desistance from crime.

These hypotheses are tested using longitudinal data collected from a sample of several hundred African American young adults. As noted earlier, most research on romantic relationships and desistance has focused upon the effects of marriage. However, numerous studies have documented that Black Americans are much less likely to marry than Whites (Clayton, Miney, & Blankenhorn, 2003; Goldstein & Kinney, 2001). African Americans are more apt to cohabitate than Whites, but these relationships are less likely to lead to marriage than is the case for Whites (Seltzer, 2004). Thus during early adulthood, the period in the life course when involvement in criminal and deviant behavior is relatively high, very few of the romantic relationships of African Americans involve marriage.

Although scholars have begun to examine the effect of non-marital romantic relationships, these studies rarely focus upon African Americans. This is an important omission as there is strong evidence that the romantic relationships of African Americans are more troubled than those of European Americans. Research by Anderson (1990, 1999) and Wilson (2003), for example, indicates that the romantic relationships of African American young adults are often fractious, antagonistic, and unstable, and Kurdek (2008) recently reported that Black dating couples exhibited more arguing and relationship dissatisfaction than White couples. In large measure these ethnic differences are rooted in dating market conditions (Oppenheimer, 1988; Wilson, 1987), economic hardship (Edin, 2000; Wilson, 1987, 1996), and other race related stressors (Simons et al., 2011). Regardless of their origin, however, these differences indicate a need for research regarding the manner in which romantic relationships and romantic partners influence the criminal behavior of African American men and women.

METHODS

DATA

We tested the above hypotheses using the latest 3 waves of data from the Family and Community Health Study (FACHS), an ongoing investigation of the social, psychological, and contextual risk and protective factors associated with African American families' health and wellbeing. (see Simons, Lin et al. 2002; Gibbons, Gerrard et al. 2004). The FACHS sample consists of several hundred African American families, all of whom were living in Iowa or Georgia at the initiation of the study. Because FACHS was designed to capture the diversity of African American families and the variety of communities in which they live, block groups (BGs) were used to identify neighborhoods in IA and GA that varied on demographic characteristics, particularly racial composition (percent African American) and economic level (percent of families living below the poverty line). These BGs (259 in total) were identified using 1990 census data. Families living within the chosen BGs were randomly selected and recruited by telephone from rosters of all African-American families who had a fifth grader (the target child) in the public school system.

The first wave of data collection began in 1997–1998, and follow-up interviews with the target children and their family members were conducted every 2–3 years thereafter. The current study utilizes target child data from the third, fourth, and fifth waves of data, collected in 2001–2002, 2004–2005, and 2007–2008, respectively. These latter waves of data capture information from mid-adolescence (age 14–15 at wave III) through early adulthood (age 20–22 at wave V). Of the 867 targets interviewed at wave 1, 689 (79.5% of the original sample) participated nearly a decade later at Wave V. By Wave V of the study, the participants no longer resided in only Georgia or Iowa but were dispersed across 23 states.

If targets were unable or unwilling to be interviewed at any given wave, they were not removed from the study; rather, they were contacted for their participation at subsequent waves. The current sample is comprised of those respondents who participated in both waves IV and V. If data were also available at wave III, those data were included in the analyses as part of the controls for prior behavior in order to best capture behavioral and

attitudinal continuities and discontinuities across time. Given our interest in the role of romantic relationships in desistance among the unmarried and the small number of married respondents in the sample (n=29), we restrict our analytic sample to the nonmarried. The final sample, then, consists of 589 unmarried individuals (342 women and 247 men). As discussed elsewhere (Simons, Simons et al. 2011), there has been little evidence of selective attrition over the course of the study. Although when compared to earlier waves, a higher percentage of the Wave V respondents were female and engaged in slightly less delinquency, there were no significant differences between participants and non-participants with regard to community measures, family structure, or parenting practices at earlier waves.

PROCEDURES

Before data collection began, focus groups (4 in GA and 4 in IA), each comprised of 10 African American women living in neighborhoods similar to those of study participants, examined and critiqued the self-report instruments. Pilot tests were then conducted on 16 families, 8 from each site. Of particular interest were any instruments that were perceived to be culturally insensitive, intrusive, or unclear. Neither the focus groups nor the pilot tests indicated a need for changes in the instruments used here.

To enhance rapport and cultural understanding, African American university students and community members, all of whom received training in the administration of the self-report instruments, served as field researchers to collect data from the families. The surveys were administered in the respondent's home and took an average of 2 hours to complete. In both waves III and IV, the instruments were presented on laptop computers. Questions appeared in sequence on the screen, which both the researcher and participant could see. The researcher read each question aloud and the participant entered an anonymous response using a separate keypad. Because many of the instruments administered at wave V included questions regarding illegal or potentially embarrassing sexual activities, audio-enhanced, computer-assisted, self-administered interviews (ACASI) were used to ensure further anonymity. Using this procedure, the respondent sat in front of a computer and responded to questions as they were presented both visually on the screen and auditorily via earphones.

MEASURES

As mentioned earlier, our analyses primarily utilize measures from waves IV and V, with wave IV measures serving as controls. When available, wave III measures are averaged with wave IV measures for the control variables in order to capture more fully the consistency of respondents' behaviors across earlier waves. The specific measures used are described below.

Dependent Variable: Criminal Behavior—Criminal behavior was assessed at waves III and IV using respondents self-reports on the conduct disorder section of the Diagnostic Interview Schedule for Children, Version 4 (DISC-IV). The DISC was developed over a 15-year period of research on thousands of children and parents. Several studies have indicated that the DISC-IV has acceptable levels of reliability and construct validity (Shaffer, Schwab-Stone et al. 1993). The conduct disorder section contains a series of questions regarding how often during the preceding year the respondent engaged in deviant acts such as shoplifting,

physical assault, lying, cruelty to animals, vandalism, burglary, and robbery. At wave 5, participants respondents to a series of questions regarding how often during the preceding year they had engaged in deviant acts, including shoplifting, destroying property, burglary, physical assault, fighting with a weapon, and use of illegal drugs. These scales were used to construct symptom counts. Waves III and IV responses were summed as an indicator of cumulative prior delinquency. Cronbach's alphas were .65 for prior behavior (wave III and IV) and .79 for current behavior (wave V).

Primary Independent Variable: Romantic Partner Status—Romantic partner status was assessed at waves IV and V by asking respondents "What best describes your current relationship status?" Those indicating that they were involved in a steady relationship with one person were coded 1 for having a *romantic partner*. Using this variable at Waves IV and V, we constructed four dummy variables indicating romantic partner transitions across waves. This set of variables included those who *entered a relationship* (no partner at Wave IV, partner at Wave V), *exited a relationship* (partner at Wave IV, no partner at Wave V), *remained partnered* (partner at both waves), and *remained single* (no partner at either wave). Admittedly, these classifications are relatively crude in that we are unable to determine if those involved in a relationship at both waves were involved with the same partner across waves and limited in our ability to assess whether and to what extent multiple transitions occurred between waves. Hence, we expect the use of such crude transition categories to produce more conservative results than would be found if a more nuanced classification scheme were available.

We first conducted all analyses using the set of relationship transition dummy variables (with *single across waves*) as a reference category (results available from the authors upon request). After each model, we conducted Wald tests to determine if the coefficients for the two partnered groups (those who *entered a relationship* and those who *remained partnered* across waves) significantly differed from one another. In no case did the effect of these two variables significantly differ from one another (p > .20 for all comparisons). For the sake of parsimony, we combine these two groups into one in all of the analyses presented here. The resulting *romantic partner* group includes all of those respondents who reported being in a relationship at wave 5. We include the dummy for *exit relationship* as a control, and hence, the *continuously single* group serves as the reference category. Because of the potentially differential effects of romantic relationships by cohabitation status, we also include a control for whether or not the respondent was living with his or her romantic partner at wave V.

Internal Moderators

Relationship Quality: This construct was assessed at wave V for those respondents reporting that they were in a romantic relationship. Items comprising the relationship quality index assessed relationship warmth and hostility, satisfaction, commitment, and marital expectations. Respondents answered 8 questions regarding how often their romantic partner did things like act loving and affectionate, show appreciation, swear or insult them (reverse-coded), and shout or yell at them (reverse-coded). Responses ranged from "Never" (1) to "Always" (7). Two additional items included in the index assessed how satisfied and happy the respondents were with their relationship. Finally, 2 items tapping into respondents'

intent to continue the relationship assessed respondents' commitment to their partner and their expectations to marry that partner. All items were standardized before forming the index, and Cronbach's alpha was high at .83. We operationalized relationship quality in such a multidimensional manner in order to offset somewhat our simplistic measure of relationship status. In other words, by conceptualizing high quality relationships as those that are not only warm and satisfying but also committed and future-oriented, we are better able to capture the significance of these relationships in our respondents' lives.

Partner Antisociality: At wave 5, respondents answered 7 questions regarding the extent to which they thought their partners engaged in antisocial acts in the previous year, including lying, doing reckless things, getting in trouble with police, and getting in arguments or conflicts with others. The response format ranged from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha for the scale was .79. Given the well-known link between antisocial behavior and troubled romantic relationships (e.g. Kim & Capaldi, 2004), in assessing the association between relationship quality and desistance, we control for partner antisociality.

Following the work of Mirowsky (1999) and Frech (2007) on internal moderation, both the relationship quality and partner antisociality indices were standardized. All respondents who were not in a relationship and, hence, had no measure of relationship quality or partner antisociality were coded at the mean of zero. Relationship quality and partner antisociality, coded in this way, are known as internal moderators (Mirowsky 1999), as they allow us to test whether "the qualities of a situation determine the effect of being in it" (117). This internal moderator technique has two primary benefits. First, it allows one to maintain the full sample, regardless of relationship status, in all analyses. Second, it allows for comparisons not only between those involved in higher and lower-quality relationships but also between those involved in relationships of varying quality and those involved in no relationship, the latter of which would be excluded if the sample were reduced only to those involved in a romantic relationship.

Mediators

Friends' Deviance: This construct was assessed at waves III through V via respondents' self-reports of their friends' deviant behaviors. At each wave, respondents answered 13 questions indicating how many of their friends in the previous year participated in deviant activities, like stealing something, getting into a fight, attacking someone, using a weapon, and using illegal drugs. Responses ranged from 1 (none of them) to 4 (all of them). Wave III and IV responses were summed to form an index of prior friends' deviance. The combined wave III/IV measure is used as a control and the wave V measure serves as the first mediator of interest. Cronbach's alphas were high at above .80 for both indices.

<u>Criminogenic Knowledge Structure:</u> This measure is composed of items from three subscales and indicates the degree to which respondents hold a *hostile view of relationships*, have a *low commitment to social conventions*, and have a tendency to *discount the future*. The 18-item hostile view of relationships subscale was assessed at waves IV and V and consists of two dimensions: a cynical view of others' intentions (e.g. "When people are

friendly, they usually want something from you") and a belief that aggression is often necessary in order to avoid exploitation (e.g. "Being viewed as tough and aggressive is important for gaining respect"). This instrument was designed to measure commitment to a hostile attribution bias (Dodge, 2006) and several studies have shown that it predicts involvement in adolescent (Simons et al., 2006) and adult (Simons and Burt, 2011) antisocial behavior. Cronbach's alphas were .86 at wave IV and .90 at wave V.

The second subscale, low commitment to social conventions, was assessed via 10-items at waves III through V and indicates the degree to which respondents think it is wrong for someone their age to engage in various deviant acts, including hitting someone in order to hurt them, stealing something, and having casual sex. This measure is similar to the moral values scale used by Wikström et al. (2010) and has been shown to predict criminal behavior (Simons and Burt, 2011). Waves III and IV responses were summed. Cronbach's alphas were .93 at wave III/IV and .86 at wave V.

Finally, the 16-item discounting the future subscale was also assessed at waves IV and V. this instrument is a combination of Kendall and Williams' (1982) inventory of self-constraint (e.g. You would rather have a small gift today than a large gift tomorrow) and Eysenck and Eysenck (1977) scale of risk-taking tendency (e.g. Life with no danger would be dull for you). The index taps into respondents' impulsivity and short-sightedness, elements important in Gottfredson and Hirschi's (1990) General Theory of Crime. Previous studies (e.g. Simons, Simons et al. 2007) have indicated that the discounting the future measure used here has acceptable levels of reliability and construct validity. Cronbach's alphas were .67 at wave IV and .71 at wave V.

Simons and Burt (2011) argued that these social schemas are interconnected, mutually reinforcing, and combine to form a criminogenic knowledge structure. Further, based upon findings from both sociology and psychology, they contend that it is never any one schema that predicts an individual's actions in a situation; rather it is the dynamic interplay of the constellation of relevant schemas that is important. Individuals implicitly combine the rules of social life represented by their constellation of schemas when construing situational circumstances and constructing a line of action. Consonant with this idea, their findings suggest that it is the combination of the three schemas, and not simply belief in any one element, that is most important in explaining individual variation in offending. Hence, in the analyses to be presented, the three scales were standardized and then summed to form a composite index of respondents' criminogenic knowledge structure. The reliability of this composite measure was .88 at wave III/IV and .89 at wave V, using Nunnally's (1978) formula for calculating the reliability of a linear combination of measures.

Assessments of both friends' deviance and criminogenic knowledge structure were standardized to have a mean of 0 and standard deviation of 1 to place them on the same metric for easier interpretation of results.

Additional Control Variables

Religious Attendance: This construct was assessed via a 2-item index at waves III and IV. Questions assessed how often in the past month respondents attended church services or

other religious activities (e.g. Sunday school, a class, or discussion group on religion). Responses ranged from 1 (never) to 5 (daily). Cronbach's alphas at wave III and wave IV were .76 and .79, respectively. Wave 3 and wave 4 responses were summed to create the index (Cronbach's alpha for the combined index was .78).

Two other variables, *age* (in years) and *education level* (years of schooling completed) were included as dempgraphic controls. Further, to control for the possibility that other transitions or statuses might be confounded with relationship status, we control for *parental status* (1 = respondent has child with partner), *work status* (1 = respondent employed), and *school status* (1 = respondent enrolled in school), all of which were measured at wave V.

ANALYTIC STRATEGY

Given the count nature of the dependent variable, negative binomial regression (Stata 10, StataCorp 2007) was used to test the proposed relationships between romantic partner status, internal moderators, and criminal behavior. We first tested for direct relationship effects by entering romantic partner status into a model with only controls. Internal moderators were then added one at a time to determine whether the romantic partner effect was contingent upon the quality of the relationship or the characteristics of the partner. Both internal moderators were then considered together in order to assess the potential effect of romantic relationship quality independent of romantic partner antisociality. The potential moderating role of gender was considered at each step.

To assess the potential roles of friends' deviance and criminogenic knowledge structure in explaining the hypothesized link between romantic relationship quality and criminal behavior, independent of the effect of partner antisociality, Sobel-Goodman mediation tests were performed via the *sgmediation* command in Stata. This command allowed us to assess whether or not the results met Baron and Kenny's (1986) conditions for mediation, those conditions being (1) the independent variable significantly affects the mediator, (2) the independent variable significantly affects the dependent variable in the absence of the mediator, (3) the mediator has a significant unique effect on the dependent variable, and (4) the effect of the independent variable on the dependent variable is significantly reduced upon the addition the mediator to the model. The mediation results provided us with the significance of the mediation and the percent of the relationship effect that was accounted for by friends' deviance.

It should be noted that we considered utilizing propensity score matching techniques in our analysis in order to control for selection effects. Ultimately, however, we found that such matching procedures were inappropriate for two reasons. First, the logit model used to predict relationship status showed very little evidence of selection into this status. That is, using an array of predictor variables, we were not able to distinguish very well between those who were involved in a relationship and those who were not. This suggested that, at least in our sample of unmarried respondents, involvement in a romantic relationship is somewhat random. Second, propensity score procedures limited our focus to the effect of relationship status (a dichotomous variable) on criminal behavior. It precluded investigation of the effects of relationship quality (a continuous variable) on criminal behavior. This

meant that propensity score matching procedures did not allow us to address our central claim that it is the character of the relationship and not the relationship itself that matters for desistance. Therefore, we employed the internal moderator approach and attempted to limit any bias due to selection by including the array of control variables described above.

RESULTS

DESCRIPTIVE STATISTICS AND BIVARIATE CORRELATIONS

As mentioned above, complete data were available for 589 unmarried individuals (342 women and 241 men). Table 1 presents the correlation matrix and descriptive statistics for the study variables. At wave 5, the latest wave of data collection, respondents averaged 21.5 years of age. The number of criminal acts committed in the past year ranged from 0 to 11, with men reporting significantly higher levels of criminal behavior than women (t = 2.25, p < .05). Over half of the respondents (N=314) reported being in a romantic relationship, and women and men were equally as likely to report being in such a relationship. The quality of their relationships and the characteristics of their partners differed significantly, however, as women reported higher relationship quality (t = -2.68, p < .01) and higher partner antisociality (t = -3.12, p < .01) than did men.

As can be seen in the correlation matrix, none of the relationship status variables show a significant bivariate association with criminal behavior at wave V. Relationship quality, however, is significantly and negatively associated with criminal behavior, with respondents' affiliation with deviant peers, and with respondents' criminogenic knowledge structure. Further, partner's antisociality is significantly and positively associated with criminogenic knowledge structure, affiliation with deviant peers, and involvement in criminal behavior. Importantly, partner's antisociality is significantly and negatively associated with relationship quality, a finding that verifies the need to control for partner antisociality in assessing the effects of relationship quality. Taken together, such bivariate results suggest that it may not be a romantic relationship in and of itself that predicts desistance from crime; rather, the characteristics of that relationship and of one's partner appear to be important elements in understanding desistance. The following multivariate analyses expand on this proposition.

ROMANTIC PARTNER STATUS AND INTERNAL MODERATORS

Table 2 presents the results obtained when our outcome, the number of crimes committed in the past year, was regressed on romantic partner status, internal relationship moderators, and various controls, including prior deviant behavior. Model 1 of Table 2 shows that five control variables significantly predicted respondents' criminal involvement. These variables include prior deviance, gender, education, prior affiliation with deviant peers, and prior criminogenic knowledge structure. Being female and having more years of schooling significantly reduced respondents' involvement in criminal behavior, while prior delinquency, prior involvement with deviant peers, and prior internalization of a criminogenic knowledge structure increased such involvement. More specifically, each prior delinquent act predicted a 12% increase in the expected number of criminal acts in early adulthood, while a standard deviation increase in prior friends' deviance and criminogenic

knowledge structure increased the expected number of criminal behaviors in early adulthood by 28% and 14%, respectively.

Of primary concern, however, are the results for the romantic partner effect. Controlling for prior criminal behavior and other significant predictors of crime, are those in a romantic relationship less involved in crime than their continuously single counterparts? Model 1 of table 2 reveals that, controlling for baseline criminal behavior and other sociodemographic characteristics, the criminal involvement of romantically partnered respondents did not differ significantly from that of their continuously single counterparts. As model 2 illustrates, this was the case for both men and women, as gender did not moderate the romantic partner effect. These findings are consistent with the bivariate results reported above and cast doubt on the notion that romantic relationships, no matter their character, act as a form of informal social control (supportive of hypothesis 1).

Models 3 through 5 in Table 2 test our hypotheses concerning the role of internal relationship moderators, particularly relationship quality and partner antisociality, in predicting desistance from crime. In other words, these models test the degree to which the effect of a romantic relationship on criminal involvement depends upon the characteristics of that relationship and of the romantic partner. Internal moderators add an interaction term to the independent variable of interest (romantic partner status) to test whether a third variable (in this case, relationship quality and partner antisociality) condition the effects of romantic partner status (Mirowsky 1999). As previously mentioned, the internal moderators were standardized and all nonpartnered respondents were assigned a value of zero (the mean).

As Model 3 reveals, relationship quality is significantly and negatively predictive of criminal behavior. More specifically, a 1-unit increase in relationship quality decreases the expected number of criminal acts by roughly 31%. Similarly, Model 4 shows that partner antisociality also significantly predicts criminal involvement in the hypothesized direction. That is, respondents who are romantically involved with antisocial partners are at an increased risk of engaging in criminal behavior, such that a 1-unit increase in partner antisociality predicts a 35% increase in the expected number of crimes committed.

Because relationship quality and partner antisociality are highly negatively correlated (see Table 1), and hence, may be accounting for similar processes, Model 5 of Table 2 enters these variables into the model simultaneously to determine whether the relationship quality effect acts independently of the partner antisociality effect. Such an independent effect of relationship quality has been implicitly assumed but has not been explicitly tested in prior research. As expected, Model 5 shows that both the quality and the antisociality coefficients are attenuated in magnitude when entered together, but both remain statistically significant. These results support hypothesis 1 and indicate that being involved in a high quality relationship can deter one from engaging in crime (while involvement with an antisocial partner is actually conducive to crime). All in all, the findings thus far suggest that (1) both relationship quality and partner antisociality have unique effects on criminal behavior and (2) the role of romantic relationships in predicting desistance can best be understood by examining the character of such relationships.

GENDER AND RELATIONSHIP CHARACTERISTIS

Model 6 of Table 2 tests the possibility that internal moderator effects differ by gender. That is, do the benefits afforded by a high quality relationship and the risks associated with having an antisocial partner differ for men and women? As indicated by the nonsignificant RP*Female*Relationship Quality interaction, the moderating effect of relationship quality on criminal behavior does not differ by gender. Hence, consistent with gender-neutral hypothesis 1, both men and women appear to reap equally the benefits of a high quality relationship. The effect of antisociality, however, does differ by gender, as indicated by the significant RP*Female*Partner Antisociality interaction term. Further, the inclusion of this three-way interaction term attenuates the two-way RP*Partner Antisociality interaction to nonsignificance, suggesting that partner antisociality predicts criminal involvement for young women only. Separate analyses by respondent gender (not shown) verified our interpretation of this significant three-way interaction. That is, relationship quality significantly predicts criminal behavior for both men and women, while partner antisociality significantly predicts criminal behavior only for women. We control for this gendered antisociality effect in the mediation analyses that follow. Model 7 serves as the baseline model from which the mediation analyses commence.

MEDIATION ANALYSIS

Models 8 and 9 of Table 2 assess the potential role of changing peer affiliations and changing knowledge structures, respectively, in explaining the significant effect of relationship quality on crime. In other words, controlling for partner antisociality, does relationship quality influence criminal behavior through its effect on peer affiliations and/or the internalization of a criminogenic social schema? Because prior measures of the mediating variables were controlled in all models, the effect of the mediators (assessed at wave V) can be interpreted as the effect of a change in peer affiliations and criminogenic knowledge structure.

As shown in Model 8, friends' deviance significantly predicted involvement in crime, such that a standard deviation increase in friends' deviance increased the expected number of crimes by 70%. Further, the inclusion of friends' deviance into the model slightly attenuated the relationship quality effect. As mentioned above, we examined the extent and significance of this apparent mediation with Sobel-Goodman mediation tests, which allowed us to assess whether or not the relationships in question meet Baron and Kenny's (1986) conditions to establish mediation. The results of these tests indicated that changes in peer affiliations did indeed partially explain the effect of relationship quality on criminal behavior. More specifically, friends' deviance mediated 21.20% of the relationship quality effect (p < .05), indicating that a high quality relationship affects criminal behavior in part through its influence on peer affiliations (supportive of hypothesis 2).

As shown in Model 9 of Table 2, criminogenic knowledge structure also significantly predicted involvement in crime, such that a standard deviation increase in this construct

¹No other effects (including controls) differed significantly by gender, as indicated by running a fully interactive model for the full sample.

increased the expected number of crimes by a rather substantial 84%. Further, the inclusion of this mediator into the model attenuated the effect of relationship quality to nonsignificance. Providing support for hypothesis 3, mediation tests revealed that change in criminogenic knowledge structure explained roughly 36% of the effect of relationship quality on desistance (p < .001).

We also ran models that treated the three schemas that comprise the criminogenic knowledge structure as independent constructs. Results revealed that each of these scales, when entered alone, significantly predicted criminal behavior but that two out the three constructs (hostile view of relationships and discounting the future) tended to be attenuated to nonsignificance when they were all entered together. This pattern indicated to us that our hostile view of relationships and discounting the future measures were implicated in our measure of low commitment to social conventions. Further, separate regression analyses, in which each of the separate constructs was regressed on the relationship variables of interest and a prior measure of the schema, indicated that each schema was similarly affected by a change in relationship quality. For example, a standard deviation change in relationship quality predicted a .11 standard deviation decrease in hostile view of relationships, .18 standard deviation decrease in low commitment to social conventions, and a .25 standard deviation decrease in discounting the future (all significant at p < .05). Hence, the three social schemas that have been theoretically and empirically linked prove to be similarly affected by romantic relationship characteristics, providing further justification for treating these schemas as interconnected components of a more general criminogenic knowledge structure (Simons and Burt 2011).

To assess the relative influence of both friends' deviance and criminogenic knowledge structure, both were entered into the regression equation in Model 10. Both friends' deviance and criminogenic knowledge structure remained significantly predictive of criminal behavior, yet mediation tests, now controlling for the influence of the other mediator, revealed only criminogenic knowledge structure to have a significant mediating effect.

DISCUSSION

One of the more exciting developments in criminological research in the past few years has been the finding that marriage has a rather robust impact upon desistance from crime (Laub and Sampson, 1995, 2003; Sampson et al., 2006; Savolainen, 2009). It is not clear, however, that this finding has relevance to most offenders given that evidence that increasingly individuals delay marriage or chose not to marry at all (Booth, Crouter, and Shanahan, 1999; Seltzer, 2000). These trends are especially evident in economically distressed African American communities (Goldstein & Kinney, 2001; Clayton, Mincy, & Blankenhorn, 2003; Lopoo and Western, 2005; Pettit & Western, 2004; Western, 2006). Thus during early adulthood, the period in the life course when involvement in criminal offending is relatively high, most romantic relationships do not involve marriage. This fact underscores the importance of research investigating the potential role of non-marital romantic relationships in desistance from crime (Giordano, 2007; Leverentz, 2010). The present study focused upon two issues pursuant to this matter.

First, we examined whether simply being in a romantic relationship is sufficient to produce desistance. Research on marriage suggests that being married is associated with desistance regardless of the quality of the relationship. We argued that this was unlikely to be the case for non-marital romantic relationships. Our reasoning was that marriage involves a formal role transition that likely contributes to a more conventional identity whereas this is not the case for non-marital romantic relationships. Further, although a spouse's right to exercise some degree of influence over their partner is considered to be a component of the institution of marriage, a person's ability to exercise influence in a non-marital relationship is strictly a function of the degree to which their partner values or is dependent on the relationship. Thus individuals will strive to meet the wishes of their partner when they are emotionally invested in the relationship, but partners are likely to have little influence over each other when the relationship is filled with acrimony and dissatisfaction.

Consistent with these ideas, our results indicated that there is no significant association between simply being in a romantic relationship and desistance from offending. On the other hand, quality of romantic relationship was rather strongly associated with desistance. And, this effect was consistent across gender. These findings suggest that non-marital relationships may operate differently than marriage. Although marriage may impact desistance regardless of marital quality, our results suggest that this is not the case for non-marital relationships. The latter only influence offending when they are warm and supportive.

In addition to the characteristics of the romantic relationship, scholars have contended that the personal characteristics of the romantic partner also likely influence the probability of desistance (Capaldi et al., 2008; Giordano et al., 2007; Simons et al., 2002). The argument is that conventional partners are apt to promote socially acceptable activities, whereas antisocial partners are likely to advance situations and opportunities involving deviant behavior. While this is a compelling idea, there is good reason to believe that women end up being more strongly influenced than men by the antisocial characteristics of their partners. The rationale for this expectation is that men have much higher crime rates than women and therefore when they form romantic relationships it is almost always with women who are less deviant than themselves (Laub and Sampson, 2003; Leverentz, 2006; Sampson et al., 2006). As Laub and Sampson (2003) note in their discussion of marriage, "Given the crime differences between men and women, it is almost invariably the case that men marry 'up' and women marry 'down' when it comes to exposure to violence and crime" (Laub and Sampson, 2003: 46). In other words, while antisocial individuals tend to become romantically involved with other antisocial persons, in most instances antisocial men still end up with partners more conventional than themselves.

Given this phenomenon, one would expect partner antisociality to exert much more impact upon the offending of females than males. Consonant with this idea, we found that partner antisociality increased the criminal involvement of females but not males. Most studies of the effect of either marriage or romantic relationships on desistance have not examined the effect of partner antisociality. And, those that do consider partner characteristics rarely investigate gender differences. However, two studies have explicitly investigated gender differences in the impact of partner characteristics on offending and both found that the

effect to be stronger for females than males (Simons et al., 2002; Haynie, Giordano, Manning, and Longmore, 2005). Thus, our findings add to a growing body of evidence suggesting that partner characteristics are more consequential for the desistance of females than males. Importantly, however, quality of romantic relationship continued to influence the desistance of females after controlling for partner antisociality.

The second issue addressed in the present study was the mechanisms whereby quality of romantic relationship influences desistance. The most popular perspective suggests that romantic relationships involve various forms of informal social control (Laub and Sampson, 2003; Osgood and Lee, 1993; Sampson et al., 2006). Partners, for example, often exercise direct control by monitoring the behavior of offenders. Further, romantic relationships frequently entail a change in routine activities, with more time being spent at home and less time out with single friends. Finally, romantic relationships often foster a social network change, with new friends and family being substituted for affiliations with deviant peers. Unfortunately, most data sets do not include the variables necessary to test these ideas. In the present study, we were only able to assess respondents' changes in affiliations with deviant peers. We found that change to a more conventional social network explained a portion of the impact of quality of romantic relationship on desistance. However, this indirect effect only approached significance. Thus, whereas Warr (1998) found that decline in affiliation with deviant peers almost completely accounted for the effect of marriage on desistance, our findings indicate that such social network changes explain only a marginal portion of the impact of non-marital romantic relationships.

In contrast to the social control perspective, some researchers have posited various psychological avenues whereby romantic relationships might influence desistance from crime (Giordano 2002, 2007; Maruna, 2001; Shover, 1996). These approaches focus on individual thought processes and emphasize cognitive transformations, changes in goals, and shifts in the way the actor views deviant behavior. The social schematic approach of Simons and Burt (2011) represents a recent example of this viewpoint. They provide evidence suggesting that in response to cumulative adversity offenders learn a crimogenic knowledge structure consisting of three schemas: a hostile, distrusting view of people and relationships, a concern with immediate gratification, and a cynical view of conventional conduct norms. They go on to suggest that romantic relationships foster desistance because they provide experiences that counter and modify this criminogenic knowledge structure.

Consistent with their arguments, we found that quality of romantic relationship was associated with a significant decrease in each of the components of their measure of criminogenic knowledge structure and that this composite construct explained 38% of the effect of quality of romantic relationship on desistance. When criminogenic knowledge structure and affiliation with deviant peers were both included the model, the mediating effect of criminogenic knowledge structure was reduced to 30% whereas the mediating effect of change in affiliation with deviant peers was no longer even marginally significant.

Although these findings suggest that cognitive changes are an important avenue whereby romantic relationships influence desistance, they should not be interpreted as an indication that cognitive transformations are more important than social control processes. The

cognitive changes identified in our analyses do not imply epiphanies or a conscious intention to change. Rather, they likely involve a long, slow process of revising one's view of social life based upon the social changes and attendant experiences described by social control theorists. As noted earlier, these researchers argue that romantic relationships tend to provide social support and monitoring while prompting new relationships and activities, structured routines involving family centered behaviors, and less unstructured time with single friends (Laub and Sampson, 2003; Sampson et al., 2006). Just as the subtle lessons and principles inherent in adverse family and community circumstances contribute over time to formation of the schemas that comprise the criminogenic knowledge structure (Simons and Burt, 2011), we expect that it is the countervailing messages and rules subtly conveyed by the new relationships and activities described by social control theorists that gradually forge a more conventional view of social life.

We expect that it is the repeated experience of social support, interaction with family and conformist friends, and participation in conventional routines and activities that fosters a new sense of trust, empathy, and sense of fairness (in contrast to a distrusting, hostile view of people and relationships), a commitment to delayed gratification and long-term goals (as opposed to a focus on opportunism and immediate rewards), and a newfound respect for the importance and benefit of conventional rules of conduct (as opposed to a cynical view of conduct norms). We expect that this is why the quality of romantic relationships matters. It is only when the social bond between partners is strong that the relationship will promote the social network and routine activity changes necessary to foster such cognitive change. And, in our view, these knowledge structure alterations are the mechanism that solidifies the desistance promoted by social control processes, thereby making this behavior change permanent. We agree with Laub and Sampson's (2003, p. 279) observation that "offenders can and do desist without a cognitive transformation," but we expect that these behavioral changes, over time, tend to result in cognitive changes that make desistance more enduring.

The primary contributions of the present study are that it examined two topics that have received little attention in prior research: the impact of non-marital romantic relationships on desistance and the mechanisms whereby romantic relationships exert their influence. Further, these issues were investigated using a sample of African Americans, a population that has been neglected in previous studies of the effect of either marriage or romantic relationships on offending. However, while the study possessed these strengths, it also suffered from various limitations. Chief among them was the homogeneity of the sample. Although there is a need for research on the consequences of romantic relationship among African Americans, we are left with the question of the extent to which our results can be generalized to other racial/ethnic groups. Although we cannot think of any reasons why our results would be specific to African Americans, the findings clearly need to be replicated with more diverse samples. Another limitation involves the number of social control measures available in our data set. Change in affiliation with deviant peers was the only social control process that we were able to assess in the present study.

Hopefully, future research can extend our work by examining a broader set of potential mechanisms whereby quality of romantic relationship exerts its impact. In addition to change in affiliation with deviant peers, research needs to incorporate the full range of

processes specified by social control theorists (Laub and Sampson, 2003; Sampson et al., 2006) such as monitoring and supervision, social network changes, and alterations in routine activities. Also, the cognitive variables included in subsequent research should include cognitive variables beyond the schemas that comprise the criminogenic knowledge structure. For example, researchers (Giordano et al., 2002, 2007) often suggest that involvement in a romantic relation changes an offender's identity, but no study has actually attempted to assess such changes and their impact on desistance. Such research would provide us with a clearer understanding of the various avenues whereby romantic relationships influence offending. This information is essential if we are to design social policies and programs that capitalize on the potential of for romantic relationships to engender desistance.

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REFERENCES

- Anderson, Eijah. Street wise. Chicago: University of Chicago Press; 1990.
- Anderson, Elijah. Code of the streets: Decency, violence, and the moral life of the inner city. New York: W. W. Norton & Company; 1999.
- Baron, Reuben M.; Kenny, David A. The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, Statistical Considerations. Journal of Personality and Social Psychology. 1986; 51:1173–1182. [PubMed: 3806354]
- Bersani, John H.; Paul Nieuwbeerta, Laub. Marriage and desistance from crime in the Netherlands: Do gender and socio-historical context matter? Journal of Quantitative Criminology. 2009; 25:3–24.
- Blockland, Arjan AJ.; Nieuwbeerta, Paul. The effects of life circumstances on longitudinal trajectories of offending. Criminology. 2005; 43:1203–1240.
- Booth, Alan; Crouter, Ann C.; Shanahan, Michael J., editors. Transitions to Adulthood in a Changing Economy: No Work, No Family, No Future? Westport, Conn.: Praeger; 1999.
- Capaldi, Deborah M.; Kim, Hyoun K.; Owen, Lee D. Romantic partners' influence of men's likelihood of arrest in early adulthood. Criminology. 2008; 46:267–300. [PubMed: 19079751]
- Clayton, O.; Mincy, RB.; Blankenhorn, D., editors. Black fathers in contemporary American society. NY: Russell Sage; 2003.
- Conger, RD.; Simons, Ronald L. Life-course contingencies in the development of adolescent antisocial behavior: A Matching Law approach. In: Thornberry, Terence P., editor. Developmental Theories of Crime and Delinquency. New Brunswick, NJ: Transaction; 1997.
- Dodge, Kenneth A. Translational science in action: Hostile attributional style and the development of aggressive problems. Development and Psychopathology. 2006; 18:791–814. [PubMed: 17152401]
- Emerson, Richard M. Annual Review of Sociology. Palo Alto, CA: Annual Reviews; 1976. Social exchange theory.
- Frech, Adrianne; Williams, Kristi. Depression and the Psychological Benefits of Entering Marriage. Journal of Health and Social Behavior. 2007; 48:149–163. [PubMed: 17583271]
- Gibbons, Frederick X.; Gerrard, Meg; Cleveland, Michael J.; Wills, Thomas A.; Brody, Gene. Perceived Discrimination and Substance Use in African American Parents and Their Children: A Panel Study. Journal of Personality and Social Psychology. 2004; 86:517–529. [PubMed: 15053703]
- Giordano, Peggy C.; Cernkovich, Stephen A.; Rudolph, Jennifer L. Gender, crime, and desistance: Toward a theory of cognitive transformation. American Journal of Sociology. 2002; 107:990– 1064

Giordano, Peggy C.; Lonardo, Robert A.; Manning, Wendy D.; Longmore, Monica A. Adolescent romance and delinquency: A further exporation of Hirschi's "cold and brittle" relationship hypothesis. Criminology. 2010; 48:919–946. [PubMed: 21423845]

- Giordano, Peggy C.; Schroeder, Ryan D.; Cernkovich, Stephen A. Emotions and crime over the life course: A neo-Median perspective on criminal continuity and change. American Journal of Sociology. 2007; 112:1603–1661.
- Goldstein JR, Kinney CT. Marriage delayed or marriage forgone? New cohort forecasts of first marriage for U.S. women. American Sociological Review. 2001; 66:506–519.
- Gottfredson, Michael R.; Hirschi, Travis. A General Theory of Crime. Stanford, CA: Stanford University Press; 1990.
- Haynie, Dana L.; Giordano, Peggy C.; Manning, Wendy D.; Longmore, Monica A. Adolescent romantic relationships and delinquency involvement. Criminology. 2005; 43:177–210.
- Homans, George C. Social Behavior: Its Elementary Forms. NY: Harcourt, Brace, Jovanovich; 1974.
- Horney, Julie D.; Osgood, Wayne; Marshall, Ineke Haen. Criminal careers in the short-term: Intraindividual variability in crime and its relation to local life circumstances. American Sociological Review. 1995; 60:655–673.
- Kim HK, Capaldi DM. The association of antisocial behavior and depressive symptoms between partners and risk for aggression in romantic relationships. Journal of Family Psychology. 2004; 18(1):82–96. [PubMed: 14992612]
- King, Ryan D.; Mossolgilia, Michael; Macmillan, Ross. The context of marriage and crime: Gender, the propensity to marry, and offending in early adulthood. Criminology. 2007; 45:33–66.
- Kurdek, Laurence A. Differences between partners from Black and White heterosexual dating couples in a path model of relationship commitment. Journal of Social and Personal Relationships. 2008; 25:51–70.
- La Vigne, Nancy; Visher, Christy; Castro, Jennifer. Chicago Prisoners' Experiences Returning Home. Washington, DC: Urban Institute; 2004.
- Laub, John H.; Nagin, Daniel; Sampson, Robert J. Trajectories of change in criminal offending: Good marriages and the desistance process. American Sociological Review. 1998; 63:225–238.
- Laub, John H.; Sampson, Robert. Shared Beginnings, Divergent Lives: Delinquent Boys to Age. Vol. 70. Cambridge, MA: Harvard University Press; 2001.
- Leverentz, Andrea M. The love of a good man? Romantic relationships as a source of support and hinderance for female ex-offenders. Journal of Research in Crime and Delinquency. 43:450–488.
- Lopoo L, Western Bruce. Incarcertation and the formation and stability of marital unions. Journal of Marriage and Family. 2005; 67:721–734.
- Maruna, Shadd. Making Good: How Ex-Convicts Reform and Rebuild Their Lives. Washington, DC: American Psychological Association; 2001.
- McCarthy, Bill; Casey, Teresa. Love, sex, and crime: Adolescent romantic relationships and offending. American Sociological Review. 2008; 73:944–969.
- Mirowsky, John. Analyzing Associations Between Mental Health and Social Circumstances. In: Aneshensel, CS.; Phelan, JC., editors. Handbook of the Sociology of Mental Health. New York: Plenum Publishers; 1999. p. 105-123.
- Nunnally, Jim C. Psychometric theory. New York: McGraw-Hill; 1978.
- Orobio de Castro, Bram; Veerman, Jan W.; Willem Koops, Joop D Bosch; Monshouwer, Heidi J. Hostile Attribution of Intent and Aggressive Behavior: A Meta Analysis. Child Development. 2002; 73:916–934. [PubMed: 12038560]
- Osgood, D Waynem; Lee, Hyunkee. Liesure activities, age, and adult roles across the lifespan. Society and Liesure. 1993; 16:181–208.
- Pettit, Becky; Western, Bruce. Mass imprisonment and the life course: Race and class inequality in U.S. incarceration. American Sociological Review. 2004; 69:151–169.
- Pew Research Center. Barely Half of U.S. Adults are Married A Record Low. Washington, D.C.: Pew Research Center; 2011.
- Pratt, Travis C.; Cullen, Frank T. The empirical status of gottfredson and hirschi's general theory of crime: A meta-analysis. Criminology. 2000; 38:931–964.

Rhule-Louie, Dana M.; McMahon, Robert J. Problem behavior and romantic relationships: Assortative mating, behavior contagion, and desistance. Clinical Child and Family Psychology Reviw. 2007; 10:53–100.

- Sampson, Robert J.; Laub, John H. Crime in the Making: Pathways and Turning Points Through Life. Cambridge, MA: Harvard University Press; 1993.
- Sampson, Rober J.; Laub, John H.; Wimer, Christopher. Does marriage reduce crime? A counterfactual approach to within-individual causal effecs. Criminology. 2006; 44:464–508.
- Savolainen, Jukka. Work, family and criminal desistance: Adult social bonds in a Nordic welfare state. British Journal of Criminology. 2009; 49:285–304.
- Seltzer, Judith. Handbook of Contemporary Families. Coleman, Marilyn; Ganong, Lawrence H., editors. Thousand Oaks, CA: Sage; 2004. p. 57-78.
- Shaffer, David; Schwab-Stone, Mary; Fisher, Prudence; Cohen, Patricia; Piacentini, John; Davies, M.; Conners, C Keith; Regier, Darrel. The Diagnostic Interview Schedule for Children-Revised Version (DISC-R). Preparation, Field Testing, Inter-rater Reliability, and Acceptability. Journal of the American Academy of Child and Adolescent Psychiatry. 1993; 32:643–650. [PubMed: 8496128]
- Simons, Ronald L.; Burt, Callie H. Learning to be bad: Adverse conditions, social schemas, and crime. Criminology. 2011; 49
- Simons, Ronald L.; Kit Lei, Man; Brody, Gene H.; Beach, Steven RH.; Philibert, Robert A.; Gibbons, Frederick X. Unfair Treatment, Plasticity Genes, and Aggression: A Test of the Differential Susceptibility Hypothesis. American Sociological Review. 2011; 866:833–912. [PubMed: 22199399]
- Simons, Ronald L.; Lin, Kuei-Hsiu; Gordon, Leslie C.; Brody, Gene H.; Murry, Velma; Conger, Rand. Community Differences in the Association between Parenting Practices and Child Conduct Problems. Journal of Marriage and the Family. 2002; 64:331–345.
- Simons, Ronald L.; Simons, Leslie G.; Kit Lei, Man; Landor, Antoinette. Relational Schemas, Romantic Relationships, and Beliefs About Marriage Among African American Young Adults. Journal of Social and Personal Relationships. 2011
- Ronald, L Simons; Simons, Leslie G.; Burt, Callie H.; Drummund, Hollie; Stewart, Eric; Brody, Gene H. Supportive parenting moderates the effect of discrimination upon anger, hostile view of relationships, and violence among African American boys. Journal of Health and Social Behavior. 2006; 47:373–389. [PubMed: 17240926]
- Simons RL, Simons LG, Chen YF, Brody GH, Lin KH. Identifying the Psychological Factors that Mediate the Association Between Parenting Practices and Delinquency. Criminology. 2007; 45:481–517.
- Shover, Neal. Great Pretenders: Pursuits and Careers of Persistent Thieves. Boulder, CO: Westview; 1996
- StataCorp. Stata Statistical Software: Release. Vol. 10. College Station, TX: StataCorp LP; 2007.
- Uggen, Christopher. Work as a turning point in the life course of criminals: A duration model of age, employment, and recidivism. American Sociological Review. 2000; 65:529–546.
- Warr, Mark. Life-course transitions and desistance from crime. Criminology. 1998; 36:183–215.
- Western, Bruce. Punishment and Inequality in America. New York: Russell Sage Foundation; 2006.
- Wikström, Per-Olof H. Situational action theory. In: Cullen, Frank; Wilcox, P., editors. Encyclopedia of Criminological Theory. Beverley Hills: Sage Publications; 2010.
- Wikström, Per-Olof H.; Ceccato, Vania; Hardie, Beth; Treiber, Kyle. Activity fields and the dynamics of crime: Advancing knowledge about the role of the environment in crime causation. Journal of Quantitative Criminology. 2010; 26:55–87.
- Wikström, Per-Olof H.; Treiber, Kyle. The role of self-control in crime causation: Beyond Gottfredson and Hirschi's general theory of crime. European Journal of Criminology. 2007; 4:237–264.
- Wilson, William Julius. The woes of the African American inner-city father. In: Clayton, O.; Mincy, RB.; Blankenhorn, D., editors. Black fathers in contemporary American society. New York: Sage; 2003. p. 9-29.

Table 1

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Intercorrelation coefficients and summary statistics by respondent gender

	-	2	3	4	w	9	7	8	6	10	11	12	13	14	15
1 Age	'	0.034	-0.258	0.129	0.119	0.074	-0.088	0.106	-0.116	-0.023	0.117	-0.038	0.027	-0.067	-0.034
2 Education	-0.077	1	0.083	0.025	0.011	-0.041	-0.050	0.042	0.015	-0.058	0.028	0.064	-0.098	0.048	-0.068
3 Religious Involvement (w3/4)	-0.252	0.065	•	-0.303	-0.220	-0.232	-0.115	-0.132	0.115	0.053	-0.108	0.031	0.031	-0.029	0.022
4 Friends' Deviance ^{a} (w3/4)	0.086	-0.006	-0.207	1	0.474	0.567	0.402	0.222	-0.143	-0.129	0.091	-0.181	0.010	0.423	0.225
5 Friends' Deviance a (w5)	0.041	-0.037	-0.152	0.477	1	0.277	0.462	0.109	-0.101	-0.039	0.076	-0.185	0.131	0.149	0.374
6 Criminogenic Knowledge Structure ^a (w3/4)	0.016	-0.159	-0.185	0.452	0.327	1	0.464	0.099	-0.013	-0.098	-0.065	-0.199	0.094	0.326	0.163
7 Criminogenic Knowledge Structure ^a (w5)	0.036	-0.118	-0.141	0.371	0.494	0.590	1	0.120	-0.080	-0.068	-0.046	-0.282	0.147	0.198	0.420
8 Romantic Partner	-0.005	0.023	-0.015	0.074	0.092	0.021	-0.023	1	-0.485	-0.708	0.410	-0.093	-0.136	0.122	0.032
9 Exited Relationship	0.051	-0.110	-0.002	-0.046	-0.049	-0.029	-0.028	-0.519	1	-0.274	-0.199	0.045	0.066	-0.118	0.016
10 Single Across Waves	-0.038	0.070	0.018	-0.043	-0.061	0.001	0.050	-0.671	-0.286	1	-0.290	0.066	0.096	-0.038	-0.048
11 Cohabiting	0.133	0.002	-0.092	0.064	0.083	0.032	0.020	0.430	-0.223	-0.289	•	0.103	-0.208	0.021	-0.035
12 Relationship Quality ^a	-0.034	0.108	0.113	-0.157	-0.263	-0.196	-0.263	0.088	-0.046	-0.059	0.006	•	-0.445	-0.071	-0.165
13 Partner Antisociality ^a	0.038	-0.036	-0.063	0.132	0.309	0.138	0.220	0.091	-0.047	-0.061	-0.003	-0.498	1	0.092	0.102
14 Deviance (w3/4)	0.079	-0.057	-0.059	0.296	0.187	0.280	0.130	0.116	-0.073	-0.067	0.041	-0.169	0.185	•	0.123
15 Deviance (w5)	0.072	-0.088	-0.036	0.231	0.405	0.227	0.380	0.026	-0.053	0.017	0.066	-0.321	0.349	0.268	•
Women															
Mean	Mean 21.526	12.384	4.283	-0.004	-0.072	-0.089	-0.191	0.549	0.181	0.270	0.184	0.064	0.077	0.421	0.833
Std	0.828	2.951	1.745	1.005	0.981	0.959	0.904	0.498	0.386	0.445	0.388	0.653	0.763	0.924	1.524
Men															
Mean	21.506	11.753	3.972	0.005	0.100	0.124	0.265	0.556	0.158	0.286	0.174	-0.088	-0.106	0.417	1.147
Std	0.891	3.633	1.675	0.995	1.020	1.044	1.065	0.498	0.366	0.453	0.380	0.845	0.701	1.084	1.931
Gender Difference		*	*		*	*	* * *					*	*		*

Notes: Women below the diagonal, men abvoe the diagonal; N = 618 (359 women, 259 men); Bolded coefficients are statistically significant at p < .05

* p .05,

** p .01,

 $a_{\mbox{\scriptsize Variable}}$ was standardized for full sample.

*** p .001

Table 2

Role of Romantic Relationships in Predicting Criminal Behavior

		1 000 7	1.062	1 047		,	1 030	1.048	Ŧ	
		060.		1.047	1.041	1.039	1.038	2	1.089^{-7}	$1.088^{\ 7}$
		0.708	0.754 *	0.647 **	* 789.0	0.703	0.702	0.835	0.941	0.994
		0.987	0.974	0.969	696.0	0.970	0.969	996.0	0.980	0.976
		.958	996.0	0.969	0.971	0.971	0.971	896.0	996.0	996:0
		1.067	1.063	1.060	1.060	1.067	1.068	1.073	1.052	1.058
		1.322 ***	1.310 ***	1.323 ***	1.316 ***	1.323 ***	1.324 ***	1.063	1.210 **	1.064
Criminogenic Knowledge Structure $(w3/4)^d$ 1.168		1.169 *	1.121	1.142 †	1.122	1.109	1.109	1.089	0.831 *	0.864 †
Exited Relationship b 0.868		0.867	0.875	0.871	0.874	0.875	0.875	0.868	966.0	0.975
Cohabiting 1.044		1.041	1.014	0.994	0.997	0.990	0.987	0.927	0.972	0.935
Romantic Partner <i>b</i> 0.948		0.914	0.895	0.907	0.886	0.868	0.873	806.0	096.0	0.965
x Female	.i	1.069				0.904	0.901	0.814	0.880	0.840
x Relationship Quality			0.701 ***		0.793 *	0.787 †	* 008.0	0.828 *	906.0	0.916
x Female x Relationship Quality						1.037				
x Partner Antisociality				1.412 ***	1.261 **	0.970	826.0	0.905	0.964	0.918
x Female x Partner Antisociality						1.655 **	1.625 ***	1.564 ***	1.590 ***	1.569 ***
Mediators (w5)										
Friends' Deviance ^a								1.580 ***		1.352 **
Criminogenic Knowledge Structure ^a									1.860 ***	1.663 ***
% Quality Mediated								16.76 †	38.10 ***	
by Friends' Deviance										5.59 ns
by Criminogenic Knowledge Structure										29.8 **

Note: Numbers presented are exponentiated coefficients with robust standard errors.

† p .10;

.05;

** p .01;

b "Single across waves" is outgroup.

^aVariable has been standardized

*** p .001 (two-tailed); N = 618