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Cohabitation, Relationship Quality, and Desistance From Crime

*Although the empirical links between marriage and desistance are well established, very little is known about the degree to which cohabitation is associated with changes in criminal behavior. This is a significant oversight given that, among some segments of the population, cohabitation has become more common than marriage. In this article, the author investigated the links between cohabitation and desistance from crime. In doing so, particular attention was paid to the possibility that similarities between the apparent effects of marriage and cohabitation are obscured by variations in relationship quality and the increasing tendency for cohabitation to precede marriage. Analyses based on the National Longitudinal Survey of Youth 1997 (*N = *3,232) indicate that cohabitation is associated with reductions in the rate of property and drug offending, but not the termination of violent, property, or drug offending. By contrast, marriage is consistently associated with large reductions in the rate of offending across the 3 crime categories as well as the abandonment of those crimes. These results provide greater insight into the links between adult family relationships, such as cohabitation and marriage, and desistance from crime.*

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Key Words: cohabitation, crime, delinquency, drugs, marriage, marital quality.

In the past 30 years, the structure of adult family relationships in the United States has changed dramatically: Marriage rates have declined steadily, whereas the popularity of cohabitation has soared (Bramlett & Mosher, 2002; Bumpass & Sweet, 1989; Smock, 2000). These changes may not have replaced marriage, but they have delayed it (Bumpass & Lu, 1999; Goldstein & Kenney, 2001; Tanfer, 1987). For the majority of cohabiters, cohabitation now represents a precursor to marriage that has helped increase the age of first marriage and substantially reduced its prevalence among young adults (Bramlett & Mosher, 2002; Bumpass & Lu, 2000; Guzzo, 2009; Kennedy & Bumpass, 2008). Premarital cohabitation is favored by a majority of U.S. high school seniors (Bachman, Johnston, & O'Malley, 2010; Manning, Longmore, & Giordano, 2007), making it an increasingly normative stage in the transition to adulthood (Goodwin, Mosher, & Chandra, 2010; Smock, 2000).

These developments have heralded considerable research on the likely effects of cohabitation on a range of individual outcomes (Smock, 2000; Smock, Casper, & Wyse, 2008), but scholarly interest in how these changes might affect crime and delinquency lags behind. Despite substantial evidence that marriage is related to individual patterns of offending, including the timing of desistance from crime (Bersani, Laub, & Nieuwbeerta, 2009; Blokland & Nieuwbeerta, 2005; Horney, Osgood, & Marshall, 1995; Laub, Nagin, & Sampson, 1998; Laub

DOI:10.1111/jomf.12105

& Sampson, 2003; Sampson & Laub, 1993; Siennick & Osgood, 2008), only a handful of studies have examined the links between cohabitation and changes in criminal offending (Horney et al., 1995; Sampson, Laub, & Wimer, 2006; Savolainen, 2009; Yamaguchi & Kandel, 1985). The studies that have done so have yielded inconsistent results, meaning that very little is actually known about how cohabitation relates to desistance from crime even though cohabitation is now more common than marriage in the period in which most people are expected to disengage from crime, that is, emerging adulthood. Given that most of what is known about the links between life course transitions and crime is based on the study of marriage (Siennick & Osgood, 2008), this knowledge may soon become redundant if demographic changes continue to outpace criminological inquiry.

Although there is reason to think that cohabitation may help encourage people to desist from crime, research on the subject is complicated by two key issues. First, if cohabitation does influence criminal behavior, it is likely to do so only in close and committed relationships (Laub et al., 1998; Laub & Sampson, 2003; Sampson & Laub, 1993). Yet cohabiters generally are much less attached and committed to their partners than married couples (Brown, 2003; Brown & Booth, 1996; Nock, 1995; Waite & Gallagher, 2001); as such, prior studies may have overlooked the impact of cohabitation on crime because a large number of cohabiting relationships lacked the characteristics necessary for them to be effective catalysts of behavioral change. Second, the fact that cohabitation increasingly precedes marriage, especially in relationships that are marked by commitment (Bramlett & Mosher, 2002; Guzzo, 2009; Kennedy & Bumpass, 2008), implies that disentangling the impact of cohabitation from that of marriage is becoming increasingly difficult.

This study was intended to overcome these challenges and help clarify the role of cohabitation in the desistance process. Whereas prior studies point to the average estimated effect of cohabitation across relationships that may differ dramatically in their effects, I evaluated the links between cohabitation and desistance while paying attention to whether they depend on the strength of relationships. In contrast to prior studies, I also distinguished among the experiences of cohabitation, marriage, and the transition between cohabitation and marriage. Using the results of a nationally representative sample of young adults, I examined whether people are more likely to disengage from crime if they enter high-quality cohabiting and marital relationships as well as whether marriages and cohabiting relationships of comparable quality are just as likely to coincide with desistance.

Background

There is now a considerable body of research showing that marriage is negatively related to involvement in crime. Not only are married individuals less likely to commit crime than their single counterparts (Farrington & West, 1995; King, Massoglia, & MacMillan, 2007), but also the experiences of getting married and staying together are associated with reductions in offending, even among individuals with extensive histories of wrongdoing (Horney et al., 1995; Laub & Sampson, 2003; Sampson & Laub, 1993). The hypothesized positive benefits of marriage have been observed in the short term and the long term, across time and place, and in both qualitative and quantitative studies (Blokland & Nieuwbeerta, 2005; Horney et al., 1995; Laub & Sampson, 2003; Shover, 1996). Finally, the reductions in crime that accompany marriage also seem to be independent of factors that might otherwise account for selection into marriage (King et al., 2007; Sampson et al., 2006), making the empirical association between marriage and desistance an especially robust research finding.

Different theories provide different explanations for these patterns, but there are at least five ways in which marriage may suppress involvement in crime: (a) marriage could help discourage offending by increasing the potential costs of crime (e.g., damaging a valued relationship) or by encouraging offenders to consider the potential disapproval of their partners (Laub & Sampson, 2003; Sampson & Laub, 1993); (b) it promotes lifestyle changes that can help reduce criminal opportunities, including contact with delinquent peers (Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996; Warr, 1998); (c) marriage can expose the offender to greater supervision and control (Laub & Sampson, 2003); (d) it can help change people's perceptions of their social roles and identities and encourage them to adopt more conventional orientations that are more consistent with the social

meanings of marriage (Giordano, Cernkovich, & Rudolph, 2002; Yamaguchi & Kandel, 1985); and, finally, (d) marriage may foster desistance by promoting improvements in self-control (Forrest & Hay, 2011).

Given these findings, it stands to reason that analogous social relationships such as cohabitation might be related to desistance in similar ways. Some studies have documented instances in which, in the course of in-depth interviews, desisting offenders have credited their de facto spouses with helping them move away from crime (Gadd & Farrell, 2004; Giordano et al., 2002; Hughes, 1998; Shover, 1996). Although these cases might provide some reason to believe that cohabitation mirrors the hypothesized effects of marriage on crime, it is difficult to know whether they represent isolated instances or manifestations of an underlying trend, especially given that none of the aforementioned studies sought to examine the specific contribution of cohabitation to the desistance process. In fact, only a handful of published studies have examined systematically the relationship between cohabitation and changes in criminal conduct independent of the links between marriage and crime (Duncan, Wilkerson, & England, 2006; Fleming, White, & Catalano, 2010; Horney et al., 1995; Sampson et al., 2006; Savolainen, 2009; Yamaguchi & Kandel, 1985). Whereas some studies have concluded that cohabitation is associated with reduced involvement in crime (Sampson et al., 2006; Savolainen, 2009) and use of marijuana (Duncan et al., 2006; Fleming et al., 2010), others have reported that cohabitation has no effect on crime other than to increase drug offending (Horney et al., 1995; Yamaguchi & Kandel, 1985).

Of the many life course transitions that might encourage desistance, cohabitation seems a likely candidate because it also represents an intimate relationship marked by coresidence (Thornton, Axinn, & Xie, 2007). Intimacy in interpersonal relationships is crucial because it either signifies or provides a basis for the development of the kinds of emotional ties and mutual interdependence between partners that are thought to dissuade people from committing crime (Laub et al., 1998; Sampson & Laub, 1993). Coresidence is important because it can lead to more opportunities for partners to supervise or control one another, change an individual's daily routines, and help distinguish the relationship from other less serious or less committed forms of romantic partnership. Absent coresidence or strong emotional ties between partners, marriage appears not to reduce individual involvement in crime and may even lead to increases in criminal conduct (Farrington & West, 1995; Horney et al., 1995; Laub et al., 1998; Sampson & Laub, 1993; Warr, 1998).

It is possible, however, that marriage and cohabitation are far less similar than they appear and that, as a result, their effects on crime may be dissimilar. First, the two types of relationship differ markedly in terms of their legal standings (Bowman, 1991; Nock, 1995; Teachman, Thomas, & Paasch, 1991; Thornton et al., 2007), which could help ensure, among other things, that the costs of ending marriages far exceed the costs of ending cohabiting relationships. Second, cohabitation and marriage appear to diverge in terms of the social norms that regulate them (Nock, 1995; Waite & Gallagher, 2001), either because the social mores that regulate cohabitation are defined less clearly than those governing marriage (Nock, 1995) or because the social norms regulating the conduct of cohabiting couples are not the same as those in marriage (Duncan, Wilkerson, & England, 2006; Waite & Gallagher, 2001). Given their varied meanings, experiential differences between the two types of relationships could cause them to have divergent effects on crime.

Perhaps the most important difference observed between married and cohabiting couples concerns the health of their relationships. On average, cohabiters report less relationship satisfaction, less stability, lower levels of commitment, less commitment to sexual fidelity, and more negative interactions than married couples (Brown & Booth, 1996; Forste & Tanfer, 1996; Hansen, Moum, & Shapiro, 2007; Nock, 1995; Skinner, Bahr, Crane, & Call, 2002; Stanley, Whitton, & Markman, 2004). These apparent differences in relationship quality are relevant because the links between marriage and crime depend on an array of individual and relationship characteristics, of which relationship quality is the most important (Laub et al., 1998; Laub & Sampson, 2003; Maume, Ousey, & Beaver, 2005; Sampson & Laub, 1993). People who are not invested emotionally in their partners have few incentives to spend their time and energy supervising, monitoring, and correcting their wayward behavior and, even if they do, their partners have few reasons to abandon behaviors that might compromise a relationship for which

they have little regard (Grasmick & Bursik, 1990; Laub & Sampson, 2003).

The tendency for cohabiters to show greater ambivalence toward their relationships than married couples could mean that cohabitation is less likely to encourage desistance if it is the experience of cohabitation that reduces commitment and attachment. But, if the differences between cohabiters and married couples are due to a tendency for many couples that are ambivalent about their relationships to avoid marriage, then cohabitation might still foster behavioral change in the remaining relationships that are marked by attachment and commitment. Perhaps the strongest evidence that cohabiting and marital relationships affect people in different ways is that married couples who lived together before they were married have less stable and satisfying relationships than those who skip premarital cohabitation (DeMaris & MacDonald, 1993; DeMaris & Rao, 1992; Kamp Dush et al., 2003; Thomson & Colella, 1992). Even if these adverse marital outcomes of premarital cohabiters are partly due to their experiences of cohabitation (Cohan & Kleinbaum, 2002; Kamp Dush et al., 2003), however, they might also reflect preexisting differences between the people who live together before marriage and those who do not (de Vaus, Qu, & Weston, 2005; Lillard, Brien, & Waite, 1995; Teachman & Polonko, 1990). Many of the other differences frequently observed between married and cohabiting couples appear to result from preexisting differences between the people drawn to either type of relationship (Axinn & Thornton, 1992; Booth & Johnson, 1988; DeMaris & MacDonald, 1993; Lillard et al., 1995; Thomson & Colella, 1992).

In any case, even if the type of relationship influences attachment and commitment, there is evidence that relationship quality influences relationship choice (Brown, 2000, 2003, 2004; Brown & Booth, 1996). Most cohabiters either separate from or marry their partners, with only 5% of cohabiting relationships lasting longer than 5 years (Bumpass & Lu, 2000; Bumpass & Sweet, 1989). Whereas most attached and committed cohabiting couples eventually get married, the weakest cohabiting relationships continue as they are until the couple separates (Brown, 2000; Brown & Booth, 1996). Among cohabiters who intend to marry their partners, relationship quality is comparable to that of married couples (Booth & Brown, 1996; Brown, 2004); however, even their relationships appear to decline if they do not eventually marry (Brown, 2003, 2004). The end result is that, at any given time, a greater proportion of married couples than cohabiters will be in high-quality relationships, whereas, on average, cohabiters will seem less emotionally involved than their married counterparts.

This means that a proper assessment of the links between cohabitation and crime must be able to distinguish the apparent effects of being in cohabiting relationships from the enduring characteristics of the people who comprise them. It also means that any evaluation of the links between cohabitation and crime needs to fulfill two additional requirements. First, it should allow for the possibility that only high-quality cohabiting relationships coincide with changes in criminal activity. Ignoring how cohabitation relates to crime at different levels of relationship quality could give the impression that it does not affect criminal behavior simply because many cohabiters are not sufficiently attached to their partners to alter their conduct. Second, any study also needs to address the tendency for the strongest cohabiting relationships to turn into marriages; otherwise, it risks erroneously attributing the behavioral changes that accompany cohabitation to the ensuing marriage (or vice versa). To my knowledge, no prior published study has met either requirement.

To summarize, prior research implies two testable hypotheses:

> *Hypothesis 1*: People in high-quality cohabiting relationships will be less involved in crime when they are in those relationships than at other times.

> *Hypothesis 2*: People in high-quality cohabiting and marital relationships will be equally likely to reduce their involvement in crime when they are in those relationships.

In acknowledging the potential importance of relationship quality, an additional point bears emphasizing. A range of factors could affect the chances of establishing a robust cohabiting or marital relationship, some of which might also reduce involvement in crime. People may actively avoid relationships that do not support their criminal lifestyles (Yamaguchi & Kandel, 1985), or they may find themselves excluded from others because of their involvement in

crime (Apel, Blokland, Nieuwbeerta, & van Schellen, 2010; Edin & Kefalas, 2005; Lopoo & Western, 2005). Others may simply choose to avoid long-term commitments or seek to maintain lifestyles that undermine relationship stability and reduce their chances of establishing or maintaining a high-quality cohabiting or marital relationship (Gottfredson & Hirschi, 1990; Yamaguchi & Kandel, 1985). Thus, the mere association of marriage or cohabitation with changes in criminal activity does not imply that either relationship is the underlying cause of behavioral change, because either could be indicative of other developments in a person's life.

Method

Analyses were based on the National Longitudinal Survey of Youth 1997 (see http://www.bls.gov/nls/nlsy97.htm), a survey of young Americans born between 1980 and 1984 who have been interviewed annually since 1997. On most occasions, respondents were asked extensively about their personal and family backgrounds, attitudes and beliefs, peer and intimate relationships, and their experiences in the preceding year. Of critical importance is that the survey investigators also asked a subsample of respondents about their participation in a range of criminal acts, including assault, robbery, theft, illicit drug sales, and drug use in the 2000–2008 waves of the survey. The analytical sample comprised a maximum of 3,232 respondents who participated in the relevant sections in at least four of the nine waves, including at least one wave since 2005.

To measure involvement in crime, I used three self-reported counts of offense frequency: (a) assaults, (b) property crimes, and (c) drug crimes. *Assaults* included the number of times respondents had "attacked someone or had a situation end up in a serious fight or assault of some kind" in the year preceding each survey. *Property crimes* included the number of times respondents reported engaging in theft and related offenses ("stolen something from a store or something that did not belong to you"), vandalism ("purposely damaged property that did not belong to you"), or other property offenses ("fencing, receiving, possessing or selling stolen property, or cheating someone by selling them something that was worthless or worth much less than what you said"). *Drug crimes* included the number of times respondents reported having used illicit drugs other than marijuana ("took some drug or other substance") or selling an illicit drug ("sold or helped to sell marijuana, hashish or other hard drugs") in the same observation period. Marijuana use was excluded because the survey questions did not indicate the number of times respondents had used the drug in the reference period.

In addition, I developed three dichotomous measures of criminal participation based on whether respondents had committed one or more offenses from each of the three crime categories within the previous 12 months (i.e., assaults, property crimes, and drug crimes). The combination of criminal participation (dummy variables) and frequency (counts) was intended to reflect the convention of defining desistance as a dynamic process that results in the termination of offending (e.g., Bushway, Piquero, Broidy, Cauffman, & Mazerolle, 2001; Bushway, Thornberry, & Krohn, 2003; Laub & Sampson, 2003). People may commit fewer offenses when they are married or cohabiting, but those changes are most likely to reflect desistance if they involve some "reduction in the rate of offending from a nonzero level to a stable rate empirically indistinguishable from zero" (Bushway et al., 2003, p. 133). The combined analysis of criminal participation and offense frequency, therefore, was intended to provide a more complete assessment of whether cohabitation is related to desistance than relying on changes in the rate of offending alone.

I measured cohabitation and marriage in terms of the living arrangements of respondents in the year preceding each survey. To ensure that the classification did not underestimate the prevalence of cohabitation or marriage by excluding people whose relationships had recently ended or had changed from one type of relationship to another (i.e., from cohabitation to marriage), I used three mutually exclusive dichotomous measures of relationship status: (a) cohabitation, (b) marriage, and (c) cohabitation with marriage. *Cohabitation* indicated respondents who had lived with an unmarried partner at any point in the previous year, provided that they had not married in the same year. *Marriage* counted people who were married at some point in the preceding year but who had not lived with an unmarried partner at any point in the year. Finally, I used the variable *cohabitation with marriage* to identify people

who were living with an unmarried partner at any point in the previous year and yet who also reported being married the same year. In most instances, this is likely to refer to respondents who married their cohabiting partners (Brown, 2000; Bumpass & Lu, 2000; Lichter, Turner, & Sassler, 2010; Stafford, Kline, & Rankin, 2004) and provides some indication of whether the transition between cohabitation and marriage coincides with desistance from crime.

Beginning in 2000, respondents to the National Longitudinal Survey of Youth 1997 who were married or cohabiting at the time of the interview were asked whether they felt their partners cared about them, how close they felt to their partners, and how much conflict existed in their relationships. Responses to these questions were recorded on a 10-point scale. Two of these items ("How much do you feel that [your partner] cares about you?" and "How close do you feel towards [your partner]?") are prima facie indicators of the strength of emotional ties between partners, and the third item provides a measure of relationship functioning ("On a scale of 0 to 10, where 0 is no conflict and 10 is a lot of conflict, how would you rate your relationship with [your partner]?"). Overall, relationship quality among respondents was very high, with mean scores on the care, closeness, and conflict items of 9.29 ($SD = 0.05$), 9.01 ($SD = 0.09$), and 3.76 ($SD = 0.31$), respectively (between 2000 and 2008). To create a summary relationship quality scale for each respondent in each year, I standardized each item and calculated the mean (for each respondent). High scores on the summary scale indicate close and caring relationships marked by low levels of conflict ($.62 \geq \alpha \leq .73$).

To take into account the potential effects of cohabitation at different levels of relationship quality, I created several time-varying dichotomous indicators of relationship quality and marital status. In each year, I divided the range of relationship quality scores into thirds and classified respondents into low-, medium-, or high-quality cohabiting or married (with or without cohabitation) relationships based on their marital status and relationship quality scores in that year. Thus, if a respondent scored in the bottom third of all relationships in terms of relationship quality in the same year she was cohabiting, she would have been classified as being in a low-quality cohabiting relationship. If the following year, the same respondent married her partner (experiencing both marriage and cohabitation in the same year) and at the same time entered the middle third of relationships in terms of quality, she would have been classified as being in a medium-quality cohabiting and married relationship (i.e., cohabitation with marriage). These combined measures take into account the possibility that relationships may get better or worse over time while recognizing the likelihood that people move into and out of different types of relationship statuses. In doing so, these measures allow for a simple test of whether cohabitation and marriage are more likely to coincide with desistance if people form attached and committed relationships.

Because relationship quality was observed only among respondents who were in a relationship at the time of the interview, some respondents could not be assigned to low-, medium-, or high-quality relationships even though they may have been in a relationship at some point in the year. These respondents, who were mostly in relationships that ended before the interview date (when quality was measured), were assigned 0 on the time-varying indicators of relationship quality and marital status in those years. This means that, in the extended analyses, respondents who were in these short-lived relationships were treated as though they were single. By contrast, in the basic analyses, the potential effects of cohabitation on those respondents were subsumed by the general measures of relationship status, which indicate whether the respondent was in a relationship at any point in the year preceding the survey. Descriptive statistics for these key variables for each survey year from 2000 through to 2008 are reported in Table 1.

To control for other influences on patterns of criminal behavior, I included several other measures. School and college were dummy variables indicating enrollment in Grades 1–12 (or a GED program) and college (1 if enrolled at the time of interview, 0 otherwise). These variables were intended to control for the influence of educational transitions (e.g., leaving school, entering college) because such changes could affect routine activities, patterns of peer association, and/or exposure to criminal opportunities. To take into account changes in educational qualifications, two more dummy variables—*high school and/or GED* (coded 1 if the respondent had completed a high school diploma or GED, 0 otherwise) and *some*

Table 1. *Descriptive Statistics: Crime, Marital Status, and Relationship Quality*

Variable	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crime									
Frequency (counts)									
Assault	0.76 (4.99)	0.57 (4.38)	0.33 (1.95)	0.44 (3.70)	0.28 (2.35)	0.22 (2.16)	0.20 (1.64)	0.18 (1.47)	0.13 (0.98)
Property crime	0.20 (0.55)	0.14 (0.46)	0.13 (0.44)	0.10 (0.40)	0.07 (0.32)	0.05 (0.30)	0.05 (0.25)	0.05 (0.26)	0.04 (0.22)
Drug crime	0.19 (0.49)	0.19 (0.50)	0.17 (0.46)	0.16 (0.45)	0.11 (0.37)	0.10 (0.36)	0.09 (0.34)	0.09 (0.34)	0.07 (0.31)
Prevalence (dichotomous)									
Assault	0.13 (0.34)	0.12 (0.32)	0.10 (0.30)	0.08 (0.28)	0.07 (0.25)	0.05 (0.21)	0.06 (0.24)	0.05 (0.22)	0.05 (0.22)
Property crime	0.14 (0.35)	0.10 (0.30)	0.10 (0.30)	0.08 (0.27)	0.05 (0.22)	0.04 (0.19)	0.04 (0.19)	0.04 (0.19)	0.03 (0.17)
Drug crime	0.16 (0.37)	0.16 (0.37)	0.14 (0.35)	0.13 (0.34)	0.11 (0.31)	0.10 (0.30)	0.09 (0.28)	0.09 (0.28)	0.07 (0.26)
Relationships									
Cohabitation	0.11 (0.32)	0.16 (0.37)	0.21 (0.41)	0.21 (0.41)	0.25 (0.43)	0.26 (0.44)	0.29 (0.45)	0.29 (0.46)	0.31 (0.46)
Low quality	0.02 (0.13)	0.03 (0.16)	0.05 (0.21)	0.06 (0.23)	0.07 (0.26)	0.07 (0.26)	0.09 (0.28)	0.09 (0.28)	0.09 (0.29)
Medium quality	0.02 (0.14)	0.03 (0.17)	0.05 (0.22)	0.05 (0.22)	0.06 (0.24)	0.07 (0.26)	0.08 (0.27)	0.09 (0.29)	0.08 (0.28)
High quality	0.01 (0.09)	0.01 (0.11)	0.02 (0.15)	0.03 (0.16)	0.03 (0.18)	0.03 (0.18)	0.03 (0.17)	0.03 (0.18)	0.05 (0.21)
Cohabitation with marriage	0.01 (0.08)	0.01 (0.12)	0.02 (0.12)	0.02 (0.13)	0.03 (0.16)	0.03 (0.16)	0.03 (0.18)	0.03 (0.17)	0.03 (0.17)
Low quality	0.00 (0.04)	0.01 (0.08)	0.00 (0.07)	0.01 (0.08)	0.01 (0.09)	0.01 (0.09)	0.01 (0.10)	0.01 (0.08)	0.01 (0.08)
Medium quality	0.00 (0.05)	0.01 (0.07)	0.01 (0.08)	0.01 (0.08)	0.01 (0.09)	0.01 (0.11)	0.01 (0.10)	0.02 (0.12)	0.01 (0.10)
High quality	0.00 (0.04)	0.00 (0.06)	0.00 (0.06)	0.00 (0.06)	0.01 (0.08)	0.00 (0.07)	0.01 (0.09)	0.01 (0.08)	0.01 (0.10)
Marriage	0.02 (0.15)	0.04 (0.18)	0.05 (0.22)	0.07 (0.26)	0.10 (0.30)	0.12 (0.33)	0.14 (0.35)	0.17 (0.38)	0.20 (0.40)
Low quality	0.01 (0.09)	0.01 (0.10)	0.01 (0.12)	0.02 (0.15)	0.03 (0.17)	0.04 (0.19)	0.04 (0.20)	0.06 (0.23)	0.06 (0.24)
Medium quality	0.01 (0.08)	0.01 (0.11)	0.02 (0.13)	0.02 (0.15)	0.04 (0.19)	0.04 (0.20)	0.06 (0.23)	0.07 (0.25)	0.06 (0.24)
High quality	0.00 (0.07)	0.01 (0.09)	0.01 (0.10)	0.01 (0.12)	0.02 (0.13)	0.02 (0.15)	0.03 (0.18)	0.03 (0.17)	0.06 (0.23)

Note: Maximum $N = 3{,}232$. Numbers in parentheses are standard deviations.

college (coded 1 if respondent had studied toward a college degree, 0 otherwise)—were derived from the enrollment and educational status of respondents at the time of interview. *Employment* referred to the number of weeks in the previous year in which respondents were in paid employment. *Poverty* recorded the natural log of the ratio of gross total household income to the federal poverty level, taking household size into account. High scores indicate respondents whose household income significantly exceeds the poverty level, and low scores indicate respondents whose household income falls below it.

Unemployment insurance and *welfare* represented, respectively, the number of months for each survey year in which respondents received unemployment insurance and cash or transfer payments from other government assistance programs. Finally, *gangs* (coded 1 if the respondent reported the presence of gangs in the neighborhood or the vicinity of school at the time of interview, 0 otherwise) provided a simple measure of potential criminal opportunities in the surrounding area as well as the neighborhood context in the absence of more detailed information about the areas in which respondents live and work. Because of the way in which information is recorded in the surveys, I could not control for imprisonment. Descriptive statistics for these control variables for each year between 2000 and 2008 can be found in the supporting online materials on the *Journal of Marriage and Family* website (http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1741-3737).

Following convention, I estimated a series of two-level hierarchical regression models in which individual time periods were nested within individuals (e.g., Horney et al., 1995; Laub & Sampson, 2003; Sampson et al., 2006). These models estimate within- and between-individual differences in criminal involvement using two distinct though related regression equations. The Level 1 equations estimated each respondent's rate (counts) or probability of offending (dummy variables) in each wave of the survey, as a function of time-varying factors and an intercept specific to each individual. The Level 2 model estimated the intercept of the Level 1 model as a function of time-stable factors. Given this structure, the Level 1 model accounted for within-individual changes in criminal activity from one year to another, and the Level 2 models helped control for between-individual differences in offending over time. I analyzed the violent (i.e. assaults), property, and drug crime counts using Poisson regression and used logistic regression to analyze the dichotomous indicators of criminal participation. These models were estimated in gllamm (Rabe-Hesketh, Skrondal, & Pickles, 2004, 2005) with robust standard errors. In the case of the Poisson regression models, the robust standard errors were intended to correct for overdispersion, as recommended by Rabe-Hesketh and Skrondal (2012).

To estimate the Level 1 equations, I included time-varying measures of marital status (i.e., cohabitation, cohabitation with marriage, and marriage) as well as controls for age, educational status and qualifications, employment, poverty, receipt of government assistance, and the presence of gangs in the neighborhood. I then replicated these analyses using the combined indicators of marital status and relationship quality. Following prior studies (Horney et al., 1995; Laub & Sampson, 2003; Sampson et al., 2006; see also Raudenbush & Bryk, 2002), all time-varying variables were centered at their individual or person-specific means. Specifically, for each variable, I calculated the difference between each respondent's actual score in each survey year and his or her average score (calculated over the duration of the survey period) and used the resulting deviation scores as the independent predictors in the Level 1 equations. For example, if a respondent married without cohabitation in four of the nine survey years, his average marriage score would have been .44 and his deviation score would have been .56 when married and −.44 while he was unmarried.

The Level 2 equations included as predictors the person-specific averages of the key independent and control variables—age, cohabitation, cohabitation with marriage, marriage, school, college, high school diploma or GED, some college, employment, income-to-poverty ratio, unemployment insurance, welfare, and gangs. Given that the purpose of the study was to assess the links between cohabitation and changes in criminal behavior, to simplify the results I report only the results of the within-individual model here. The estimated coefficients from the Level 2 equations, which yielded some assessment of the links between the proportion of time people spent in either type of relationship and

their overall involvement in crime throughout the survey period, are available in the online materials.

The principal advantage of centering the independent variables by using deviation scores in the Level 1 equations and person-specific averages in the Level 2 equations is that it ensures that estimates of the possible effects of cohabitation on crime are not biased by time-stable differences in unobserved individual characteristics. As a result, any changes in offending that coincide with cohabitation or marriage cannot be attributed to durable traits (e.g., criminal propensity) that might influence marital status or involvement in crime (Brame, Bushway, & Paternoster, 1999; Horney et al., 1995). In all other respects, centering the Level 1 independent variables at their person-specific means does not affect the substantive results and eases their interpretation (Raudenbush & Bryk, 2002; Skrondal & Rabe-Hesketh, 2004). With centering, the main coefficients of interest—the coefficients for cohabitation and cohabitation with marriage—estimate the change in the rate or the odds of offending when respondents are in those relationships compared to when they are not.

It is important to note that the analytical method examined contemporaneous relationships between marital status and the three indicators of crime. Specifically, the results of the within-individual analyses tell us whether respondents were less involved in crime in the years in which they were also in cohabiting or marital relationships. The method cannot rule out the possibility that such correlations reflect the impact of declining criminal participation on patterns of relationship formation or some other unobserved changes that already are underway in the lives of offenders. Nonetheless, in the absence of robust evidence that cohabitation is even related to changes in criminal behavior, any assessment of its potential role in desistance must begin with an assessment of whether changes in behavior accompany the experience of being in a cohabiting relationship. In referring to correlations that are consistent with the hypothesized effects of cohabitation on crime, I have described such patterns as *estimated* or *likely* effects, to simplify the discussion. As in all observational studies, care should be taken in making causal inferences based on empirical connections.

Results

The results of the analyses of the within-individual changes in the three measures of offense frequency are presented in Table 2. Leaving aside relationship quality, the results give little reason to think that cohabitation is associated with desistance from crime. None of the relationship transitions were linked to changes in the rate of property crime, and respondents in cohabiting relationships appeared to commit more assaults, not fewer, than they did at other times. In fact, the only evidence that relationship transitions could reduce the rate of offending comes from the analysis of the links between marriage and the counts of drug crimes. In the years in which they were married, respondents reported half as many drug offenses as they did at other times. Also, respondents who experienced both cohabitation and marriage in a single year reported three-fifths as many drug crimes in those years as they did at other times in the survey period. In the absence of marriage, however, cohabitation had no discernible effect on changes in patterns of drug offending.

Taking the relative quality of cohabiting and marital relationships into account gives some additional insight into these patterns. The results of the extended models, shown in Table 2, indicate that medium-quality cohabiting relationships were associated with reductions in the rate of property offending, whereas being in either a low- or high-quality cohabiting relationship was linked to modest reductions in the number of drug crimes reported. They also suggest that the positive relationship between cohabitation and changes in the rate of assault, reported in the basic model, was confined to low-quality cohabiting relationships.

Despite these patterns, the estimates in Table 2 indicate that the greatest reductions in offending are likely to coincide with marriage. Transitions between cohabitation and marriage for people in medium- or high-quality relationships were associated with reductions in the number of assaults reported. Substantial reductions in the rate of property crime were also detected when respondents formed medium- and high-quality marriages (i.e., marriage alone); in marriage, they committed roughly one quarter of the number of offenses they had committed when they were unmarried. Finally, respondents were also much less involved in drug crimes when they married than at other stages. Those who married and lived with a

Table 2. *Incident Rate Ratios With Robust Standard Errors, Poisson Regression*

	Violent crime		Property crime		Drug crime	
Intercept/variable	Basic	Extended	Basic	Extended	Basic	Extended
Intercept	1.04	1.20	1.46	1.38	0.62	0.64
	(1.39)	(1.62)	(1.44)	(1.35)	(0.54)	(0.55)
Cohabitation	1.46*		1.06		1.01	
	(0.26)		(0.11)		(0.07)	
Low quality		1.46		0.74		0.82*
		(0.47)		(0.13)		(0.08)
Medium quality		0.67		0.67*		0.88
		(0.18)		(0.12)		(0.08)
High quality		0.72		0.78		0.68*
		(0.34)		(0.26)		(0.11)
Cohabitation with marriage	0.50		0.97		0.62**	
	(0.18)		(0.25)		(0.11)	
Low quality		0.94		1.03		0.53*
		(0.57)		(0.39)		(0.17)
Medium quality		0.43		0.69		0.52*
		(0.22)		(0.25)		(0.13)
High quality		0.16**		0.91		0.72
		(0.11)		(0.67)		(0.32)
Marriage	0.77	—	0.72	—	0.54***	—
	(0.27)		(0.15)		(0.08)	
Low quality		1.37		0.92		0.46***
		(0.63)		(0.25)		(0.09)
Medium quality		0.20***		0.26***		0.47***
		(0.09)		(0.08)		(0.09)
High quality		0.37		0.23*		0.30***
		(0.20)		(0.16)		(0.10)
Level 1 variance	5.13	5.12	1.84	1.80	2.13	2.14
	(0.29)	(0.29)	(0.13)	(0.13)	(0.11)	(0.11)
Number of observations	14,609	14,609	14,649	14,649	17,122	17,122
N	3,156	3,156	3,158	3,158	3,183	3,183
Log likelihood	−8,332.43	−8,254.16	−3,633.02	−3,609.85	−6,213.58	−6,205.32

Note: Numbers in parentheses are standard errors. The complete table is available as online Table S2 on the *Journal of Marriage and Family* website (http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1741-3737).

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

partner in the same year (i.e., cohabitation with marriage), whether in low- or medium-quality relationships, committed half the number of drug crimes in that year as they did at other stages in the survey period. In marriage, rates of drug offending fell even further; at each level of relationship quality, getting married appeared to have a greater effect on offending.

These results are consistent with the hypothesis that entry into a cohabiting relationship is associated with reductions in criminal offending (although not to the same extent as getting married). Nonetheless, a more complete assessment of how entering cohabitation relates to criminal desistance requires some consideration of whether these reductions might lead people to stop offending altogether. To that end, in Table 3 I present the results of the analyses of the within-individual changes in the three measures of criminal participation. These results suggest that, across the three offense categories, only

Table 3. *Adjusted Odds Ratios With Robust Standard Errors, Logistic Regression*

	Violent crime		Property crime		Drug crime	
Intercept/variable	Basic	Extended	Basic	Extended	Basic	Extended
Intercept	0.40	0.44	2.59	2.40	1.46	1.55
	(0.43)	(0.47)	(2.90)	(2.70)	(1.77)	(1.87)
Cohabitation	1.10		1.12		1.07	
	(0.14)		(0.16)		(0.12)	
Low quality		0.86		0.83		0.74
		(0.15)		(0.17)		(0.12)
Medium quality		0.73		0.72		0.82
		(0.13)		(0.16)		(0.13)
High quality		0.84		0.72		0.60
		(0.21)		(0.25)		(0.16)
Cohabitation with marriage	0.81		1.42		0.61	
	(0.25)		(0.41)		(0.15)	
Low quality		0.99		1.61		0.46
		(0.51)		(0.74)		(0.20)
Medium quality		0.60		1.05		0.51
		(0.28)		(0.44)		(0.18)
High quality		0.70		1.15		0.56
		(0.39)		(0.94)		(0.33)
Marriage	0.80		0.78		0.45***	
	(0.19)		(0.19)		(0.09)	
Low quality		1.04		1.08		0.34***
		(0.31)		(0.33)		(0.09)
Medium quality		0.45*		0.29**		0.32***
		(0.14)		(0.12)		(0.09)
High quality		0.68		0.24		0.21***
		(0.31)		(0.18)		(0.08)
Level 1 variance	2.01	1.99	2.23	2.23	4.49	4.55
	(0.19)	(0.19)	(0.22)	(0.22)	(0.28)	(0.29)
Number of observations	14,609	14,609	14,649	14,649	17,049	17,049
N	3,156	3,156	3,158	3,158	3,183	3,183
Log likelihood	−3,396.41	−3,386.04	−2,941.81	−2,941.81	−4,856.07	−4,848.02

Note: Numbers in parentheses are standard errors. The complete table is available as Table S3 on the *Journal of Marriage and Family* website.

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

marriage was unambiguously associated with the abandonment of criminal activity. Changes in the odds of assault and violent property crime were confined to respondents entering medium-quality marriages, but getting married was associated with the cessation of drug offending at all three levels of relationship quality. Also, as the strength of marital relationships increased, so too did the magnitude of those changes.

By contrast, cohabitation had no discernible effect on the termination of violent or property offending. Irrespective of the strength of ties between partners, respondents who were cohabiting were just as likely to be involved in violent and property crimes in the years in which they were living with their partners as they were at other stages in the survey period. Estimates of the possible effects of entering a low- or high-quality cohabiting relationship on drug offending or that of moving from a cohabiting to married relationship may have approached statistical significance, but none met the conventional criterion. The magnitude of those estimates also fell short of those pertaining to marriage. Together, these results suggest that cohabitation is not associated with the cessation of criminal activity even if it is connected, in some circumstances, to changes in the rate of offending.

Discussion

To explain how and why people abandon crime, researchers have looked closely at some of the life course transitions that might account for changes in their patterns of criminal conduct, but in these studies "some role transitions [have] received more attention than others" (Siennick & Osgood, 2008, p. 161). Of these, marriage has probably received the most interest given that many studies have reported that marriage is negatively associated with involvement in crime and positively related to desistance (Horney et al., 1995; Laub & Sampson, 2003; Sampson & Laub, 1993). By contrast, very little is known about the criminological consequences of cohabitation. Although cohabitation is sometimes mentioned in the desistance stories of selected individuals (Gadd & Farrall, 2004; Giordano et al., 2002; Hughes, 1998; Shover, 1996), the extent to which it is associated with desistance in the larger population seldom has been evaluated systematically. The few studies that have addressed the issue have reached divergent conclusions (Horney et al., 1995; Sampson et al., 2006; Savolainen, 2009; Warr, 1998; Yamaguchi & Kandel, 1985).

Given the steady growth in the popularity of cohabitation and its emergence as the preeminent intimate relationship among young adults (Bumpass & Lu, 2000; Bumpass & Sweet, 1989; Casper & Cohen, 2000; Smock, 2000), the lack of consensus regarding the relationship between cohabitation and crime is a major void in knowledge. As a result of recent demographic changes, research on the links between life course transitions and crime is based on an increasingly anachronistic model of young adulthood (that imagines marriage as the critical life course transition of early adulthood). Clarifying the links between cohabitation and crime, therefore, should be a key priority for researchers in the 21st century.

There is reason to expect that cohabitation might rank alongside marriage as a turning point in the lives of many active offenders because it imitates marriage more so than any contemporary social institution. But the study of cohabitation and its impact on crime is complicated by the possibility that even if it does affect involvement in crime, its effects are likely to be contingent on the emotional health of cohabiting relationships. Relative to marriage, cohabiting relationships are less likely to be committed, supportive, and characterized by emotional interdependence. Furthermore, the strongest cohabiting relationships become marriages. The end result is that, even if cohabitation mirrors the hypothesized impact of marriage on crime, its impact might be attributed erroneously to marriage or overlooked by researchers seeking an average, rather than a conditional, effect.

The aim of this study was to clarify whether cohabitation can help foster desistance taking into account these complexities. In contrast to prior studies that have assessed the average relationship between cohabitation and crime, in the current study I specifically evaluated the links between cohabitation and desistance in relationships of varying degrees of quality and in a way that distinguished among episodes of cohabitation, marriage, and the periods in which couples moved between them. Finally, I examined whether cohabitation coincided with both reductions in the frequency of offending and the transition to nonoffending. In that sense, the current study offers a more nuanced and comprehensive assessment of the links between cohabitation and desistance than those published previously.

The results provide some limited support for the view that entering a cohabiting relationship is related to reductions in the rate of offending, especially in relationships characterized by strong emotional ties between partners. First, entry into cohabitation at all levels of relationship quality was associated with reductions in the number of drug offenses, whereas changes in the number of property crimes committed were limited to people entering medium-quality cohabiting relationships. Second, in the case of drug crime, the greatest reductions in the rate of offending were associated with moving into high-quality cohabiting relationships. In fact, just restricting the focus of the analyses to relationships that stood a very modest test of time—those still intact at the time of interview—seems to change the connection between cohabitation and drug offending noticeably. Finally, respondents who moved between cohabitation and marriage in a single year were less engaged in drug crime in that year, and these links were moderated by relationship quality. For those in high-quality relationships, the transition between cohabitation and marriage was associated with reductions in the number of assaults committed as well.

Despite these patterns, however, respondents were not less likely to be involved in crime in the years in which they were living with their partners than at other times in the survey period. Of critical importance is that this is not due to the seemingly lower levels of relationship quality found among unmarried cohabiters. Even among people in high-quality relationships, episodes of cohabitation were unrelated to changes in the probability of committing an assault, engaging in property crime, or selling or using illegal drugs. Also, although entry into low- and high-quality cohabiting relationships appeared to be associated with changes in the odds of committing one or more drug crimes, those associations were not significant at conventional levels. Similarly, the transition between cohabitation and marriage did not correlate with transitions away from either form of offending, despite the fact that respondents who married and cohabited in the same year also experienced declines in their rates of offending.

At the same time, the results of this study provide additional empirical evidence that marriage is related to changes in patterns of criminal behavior, and, much as anticipated, the study also found that the link between marriage and involvement in crime is contingent on the strength of interpersonal relationships. In contrast to cohabitation, however, married respondents were more likely to have desisted from crime in the years in which they were married: People who were close and committed to their spouses were both less involved in crime and less likely to offend while they were married than at other comparable stages of their lives. Thus, in contrast to cohabitation, the reductions in offending observed among married individuals either result in or are due to the cessation of criminal activity. Also, these patterns were observed consistently across the three offense categories. Respondents committed fewer drug offenses when they were married than at other times, whereas those entering close and committed marriages appeared also to be less heavily involved in violent and property crime. At the same time, respondents entering low-, medium-, and high-quality marriages were less likely to commit any drug offenses, and those entering medium-quality relationships were less likely to commit any assaults or property crimes than at other times in the survey period.

Taken together, the results of this study provide only mixed support for the first of its two hypotheses. The experience of entering and maintaining high-quality marital relationships was associated with reductions in criminal behavior, and, in some circumstances, cohabitation coincided with declines in offending even before couples married. However, cohabitation was not related to the termination of offending, irrespective of whether it was measured in connection to or in isolation from marriage. Only marriage, therefore, was unambiguously and unequivocally linked to desistance from crime, insofar as only marriage related to both changes in the frequency and the prevalence of criminal behavior.

The results also clearly contradict the second hypothesis that cohabiting and marital relationships of comparable quality are similarly related to patterns of offending. High-quality marriages were much more likely to coincide with within-individual changes in crime than high-quality cohabitation. Even leaving aside the issue of changes in criminal participation, most of the changes in the rate of offending accompanying marriage seemed to exceed those associated with cohabitation. In fact, the only exception concerned the change in the rate of assault observed among respondents who cohabited and married in the same year. Even that result, however, may say more about the potential effect of transitioning from cohabitation into marriage than it does about the effects of cohabitation per se.

The empirical differences observed between the offending patterns of cohabiting and married respondents therefore cannot be dismissed easily as a function of differences in the strength of their relationships. They seem more likely to reflect genuine differences between relationship types and imply there is something special about marriage that is absent from most cohabiting relationships, even those characterized by high degrees of attachment and commitment. Much has been made of the legal and normative distinctions between the two types of relationship and the possibility that such differences cause cohabiting and married couples to behave differently from one another (Nock, 1995; Rindfuss & VandenHeuvel, 1990). A worthwhile avenue for future research therefore might be to investigate whether cohabitation and marriage diverge in terms of the underlying mechanisms that are believed to foster desistance (e.g., monitoring and supervision by partners).

That entering cohabiting relationships does not coincide with the termination of offending,

even in the presence of attachment and commitment, might imply that strong emotional ties or mutual interdependence between partners may not be sufficient to promote desistance, as is often thought (Laub et al., 1998; Sampson & Laub, 1993). The results of this study are probably more consistent with an expanded version of the age-graded theory of social control that acknowledges the importance of other mechanisms in the desistance process than the original formulation of that theory, which emphasized attachment as the primary agent of behavioral change (Laub & Sampson, 2003; Sampson & Laub, 1993). The present results imply that, in order to take full advantage of the changes in offending that may sometimes accompany cohabitation, people need more than just a strong and committed relationship. At the same time, the fact that cohabitation is not as strongly or consistently connected to desistance as marriage could reflect the tendency for the benefits of good relationships to accrue over time (e.g., Laub et al., 1998). Perhaps cohabitation is unrelated to the cessation of criminal activity but related to reduced involvement in crime, because the strongest cohabiting relationships result in marriage before their benefits can be fully realized. Future studies could investigate this possibility by examining the timing and duration of relationship transitions and how they relate to criminal activity.

It also is possible that the changes in offending patterns that coincide with cohabitation and marriage are not necessarily caused by either relationship. Involvement in crime may adversely affect the prospects of marriage, especially among people who have been incarcerated (Huebner, 2005, 2007; King et al., 2007), which could ensure that offenders who desist from crime are more likely to marry whereas those who continue offending are more likely to remain in cohabiting relationships. Marriage may also be relatively unattractive to people who choose to lead a criminal lifestyle (Gottfredson & Hirschi, 1990) or who wish to avoid making the kinds of lifestyle changes that might lead them to abandon crime (Yamaguchi & Kandel, 1985). The latter point, in particular, highlights the value of thinking about relationships as "hooks for change"—opportunities that are most likely to lead to desistance if the offender is ready to take advantage of them (Giordano et al., 2002)—and implies a need to pay closer attention to how and why offenders choose between relationships. As with almost all research on the subject (King et al., 2007; Sampson et al., 2006), the patterns reported here reflect contemporaneous associations, not causal relationships.

Readers should note that the results presented here do not take into account potential sex, race, or ethnic differences in these patterns. Such differences may exist on account of the different baseline crime rates of men and women or of Blacks and Whites (Elliot & Ageton, 1980; Steffensmeier & Allan, 1996). They may also arise from the apparent sex and ethnic differences in the meanings that people attach to cohabitation and marriage (Lichter, McLaughlin, Kephart, & Landry, 1992; Raley, 1996). The current study is based also on the results of a nationally representative sample of American youth that included only a small percentage of serious, chronic offenders. Whether the patterns observed here apply to different categories of offenders remains to be seen. Finally, it is possible that taking into account other life course transitions, such as parenthood (Kreager, Matsueda, & Erosheva, 2010), might reduce the apparent effects of either marriage or cohabitation, especially among some specific groups.

Those caveats aside, speculation about either the causal significance of marital or cohabiting relationships or how they compare across different segments of the population should not detract from the overall conclusion of this study: Cohabitation is only tentatively related to desistance from crime. First, despite its links to changes in the rate of offending for some types of crime, and for drug offending in particular, cohabitation appears unrelated to the cessation of criminal activity in any crime category. Second, the changes in the frequency of drug and property offending that accompany some cohabiting relationships are not anywhere near as substantial as the changes that accompany marriage. Third, those patterns are not due solely to the differences in the strength of emotional ties between married and cohabiting partners. Even after allowing for the conditioning influence of relationship quality, the greatest reductions in offending accompany marriage, not cohabitation. At some level, therefore, it seems reasonable to infer that the processes that link marriage to changes in the frequency and probability of offending are either partially absent from or less effective in most cohabiting relationships. The next step for researchers surely is to find out why.

Note

I thank Chet Britt, Ben Edwards, Carter Hay, Alan Hayes, and Daryl Higgins for comments on earlier drafts of this article. All remaining errors are my own. Views expressed in this article are those of the individual author and may not reflect those of the Australian Government or the Australian Institute of Family Studies.

Supporting Information

Additional supporting information may be found in the online version of this article:

Table S1. Descriptive Statistics

Table S2. Incident Rate Ratios With Robust Standard Errors, Poisson Regression

Table S3. Adjusted Odds Ratios With Robust Standard Errors, Logistic Regression

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