SOCIOECONOMIC DISADVANTAGE, PEER AND ROMANTIC

RELATIONSHIPS, AND THE PROCESS OF CRIMINAL DESISTANCE

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ABSTRACT

The current study examines the role of socioeconomic disadvantage and peer context in shaping romantic relationship experiences, and in turn, the influence of these experiences on crime trajectories. Drawing on four waves of panel data from the Toledo Adolescent Relationships Study (N = 1,066) we found that, both low SES and delinquent peers are linked to more liberal approaches to romantic and sexual relationships as well as higher levels of intimate partner violence. Increasing involvement with delinquent peers predicted higher than average trajectories of liberal relationship scripts and intimate partner violence. These relationship dynamics, especially liberal dating scripts, were found to influence crime trajectories even after controlling for changes in relationship stability, employment, and other crime correlates. Research should incorporate broader socioeconomic factors that are likely to influence the character of peer networks and specific problem features of romantic relationships that are associated with variations in criminal involvement.

1. INTRODUCTION

Social control theorists have suggested a pivotal role for what is called "the good marriage effect," (Laub & Sampson, 2003) arguing that strong bonds of attachment to a spouse inhibit criminal behavior and foster conventional lifestyles. Interestingly, however, a recent study finds that delinquent and non-delinquent adolescents report similar levels of emotional 'bonding' within romantic relationships (Giordano et al., 2010). Bonds of attachment may well aid in the criminal desistance process, but a strict focus on these bonds does not provide a comprehensive account of the nature of intimate relationships and their desistance potential. Specifically, this perspective does not take into account a) the degree to which marriage and other intimate partnerships are influenced by broader social forces such as economic disadvantage and peer normative climates, and b) the role of other potentially consequential dynamics within intimate relationships that may also influence the desistance process.

The current study examines liberal scripts and intimate partner violence as dynamics within relationships that may destabilize the criminal desistance process. Liberal scripts encompass attitudes and behaviors such as an acceptance of having sex with someone other than a romantic partner (casual sex), sex with someone other than one's own partner (cheating/infidelity), or sex with someone already involved in a romantic relationship (see Harding, 2007 for a recent example). Numerous empirical findings indicate that a key factor related to the timing and nature of sexual relationships is socioeconomic disadvantage (Browning et al., 2008; Browning & Burrington, 2006; Burton, 2007; Halpern et al., 2006; Harding, 2007; Manning et al., 2005; Ramirez-Valles, Zimmerman, & Newcomb 1998; Santelli et al., 2000). These studies generally find that disadvantaged adolescents are more likely than their middle-class counterparts to experience sex early and sex outside the context of romantic relationships. Prior research also demonstrates that rates of intimate partner violence are higher among low SES couples (Abramsky et al., 2011; Brown & Bulanda, 2009; Cunradi,

Caetano, & Schafer, 2002; Fox et al., 2002). However, while these associations have been

demonstrated in prior work, rarely have researchers made explicit connections between these

broader socioeconomic influences, the character of young adult unions, and patterns of crime

across the population.

Economically disadvantaged men and women are exposed to an array of conditions

during adolescence that may reduce the chances of finding a relationship that aids in the

criminal desistance process. In addition to facing high levels of unemployment and other

economically marginalizing factors (e.g., incomplete or inadequate schooling) disadvantaged

youths are often confronted with the challenges of having to navigate heterosexual

relationships, absent the guidance of conventionally situated adults (Browning & Burrington,

2006; Gibson-Davis, Edin, & McLanahan, 2005; Parker & Reckenwald 2008; Wilson, 1987). For

example, the levels of male unemployment and single-parent households in a community are

likely to influence local peer culture as well as the degree to which liberal relationship scripts are

viewed as normative (Burton, 2007; Harding, 2007; Jemmott & Jemmott, 1990). The general

importance of peer relationships for social development suggests that low SES adolescents are

also likely to look to other disadvantaged peers for lessons on how to manage relationships with

the opposite sex, which may be problematic due to the relatively high levels of delinquency in

the peer networks of disadvantaged adolescents (Giordano, 2003; Harding 2009; Haynie &

Payne, 2006; Kreager, 2007). Thus, low SES adolescents are more likely to become enmeshed in

a peer culture that may further increase the chances of developing a relatively "liberal" view of

romantic relationships as well as increase exposure to aggressive tactics for resolving conflicts

with romantic partners.

Drawing on four waves of panel data from the Toledo Adolescent Relationships Study (N

= 1,066), we examine the linkages between socioeconomic disadvantage, delinquent peers,

romantic relationship experiences and crime trajectories. Our theoretical approach to

analyzing these linkages builds on the differential association perspective (Sutherland 1947) and

argues that assessments of intimate partnerships and peers together are critical for analysis of SES and the desistance process. Traditional treatments of peer effects on crime suggest that peers exert a direct influence by providing definitions "favorable to the violation of law." We move beyond this focus by highlighting that delinquent peers may also be influential in reinforcing liberal dating scripts as well as offering lessons about how to resolve conflicts within romantic relationships. This study also makes a contribution by re-examining the links between SES and crime. Although it is widely assumed that socioeconomic disadvantage increases the odds of criminal involvement, research finds that these linkages are not always straightforward (e.g., Wright et al., 1999), and may be mediated by socializing experiences during the adolescent phase of the life course. Enmeshment in a delinquent peer network is one potential mediating factor (e.g., Lonardo et al., 2009); however since gang involvement and deviant peer cultures are so closely tied to delinquent behavior itself, it is useful to explore other mechanisms through which socioeconomic disadvantage influences social development and conduct in ways that potentially amplify risk for criminal persistence. We draw specific attention to liberal relationship scripts and intimate partner violence because 1) these dynamics are more likely to characterize the relationship experiences of low SES adolescents; and 2) they may destabilize the potential of relationships that otherwise might prove useful to the desistance process. Analyses control for traditional factors related to desistance from crime such as changes in relationship stability, employment and education status, delinquent friends, and family background and demographic indicators.

2. BACKGROUND

Laub and Sampson's (2003) analysis of marital relationships and crime suggests that finding a relationship which aids in the criminal desistance process may simply be a matter of chance or luck (see also Sampson et al., 2006). Once formed, such relationships may indeed 'knife-off' connections to 'bad companions,' reduce the level of risk in routine activities, and gradually

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forge bonds to conventional adult lifestyles (Duncan et al., 2006; Horney, Osgood, & Marshall, 1995; Laub, Nagin, & Sampson, 1998; Warr, 1998). However, romantic relationships are not typically developed in isolation from the peer networks that continue to be of importance during the phase of the life-course when longer-term unions traditionally begin to solidify (Furman, 1999; Giordano et al., 2003). Experiences with same-sex peers may 'carry over' to influence the adolescent's emerging views on dating, sex, and how to resolve conflicts within romantic relationships (e.g., Collins & Sroufe, 1999).

Anderson (1999), for example, in his ethnographic study of economically disadvantaged African American youths, describes the social environments of the urban poor as encompassing a broad array of social norms, attitudes and behavioral scripts for navigating peer interactions and interpersonal relationships, including those that are romantic or sexual in nature. Likewise, Harding (2009) finds evidence that the peer networks of disadvantaged youths are more likely to include older and more deviant peers who have failed to solidify conventional adulthood lifestyles. Further, by examining the development of these relationship dynamics, we may gain a better understanding of why some segments of low SES adults fail to demonstrate a normative pattern of criminal desistance. General population studies indicate that criminal behavior typically peaks at around age eighteen; however there are numerous social and psychological factors that may modify crime trajectories (see Piquero, Farrington, & Blumstein, 2003 for in depth discussion).   A potential key dynamic that has received relatively little attention in the research on criminal desistance are the links between SES and intimate relationships. Liberal relationship scripts may lengthen or extend a criminal career by increasing the level of risk involved in one's routine activities (Osgood et al., 1996) even when the primary interest is socializing rather than seeking out additional opportunities for criminal involvement (e.g., Warr, 1998). Cheating on partners, for example, may increase involvement in social contexts that are high risk for crime and delinquency such as "partying" and hanging out with friends in bars and nightclubs (Osgood & Anderson, 2004; Seffrin et al., 2009; Sampson & Lauritsen, 1990; Sherman,

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Gartin, & Buerger, 1989; Vazsonyi et al., 2002; Wong, 2005). As prior research suggests, involvement in these contexts may further reinforce delinquent modes of thinking and views of self that perpetuate criminal behaviors. Violence between intimates, on the other hand, more often occurs in private domestic settings (Department of Justice, 2000) and therefore not as likely to be connected, at least directly, to other criminal behaviors; yet the conflict that partners experience may, itself, undermine the development of more secure relationship attachments that control theorists suggest should deter criminal involvement (Hirschi, 1969; Laub & Sampson, 2003). Thus, it is potentially useful to move beyond the concept of bonds of attachment to consider additional dynamics within romantic relationships that are associated with variations in the likelihood of observing a positive benefit (from a crime standpoint) from these relationships.

Drawing on social learning theories of crime and delinquency (e.g., Sutherland, 1947), we argue that experiences within peer networks may develop as a normative climate that makes it more difficult for young adult romantic relationships to act as effective "hooks" for making behavioral changes, such as decreases in antisocial activities (Giordano, 2002). Below we briefly consider precursors and consequences of two relationship dynamics, intimate partner violence and liberal relationship scripts, that may potentially have implications for the likelihood of forming prosocial romantic relationships.

3. DESISTANCE DESTABILIZERS

There is an implicit assumption that relationships bring out the best in partners, however, these dynamics are not inevitable, and indeed may be characterized by negative or problematic features that may not be supportive of desistance processes. For example, Laub and Sampson (2003), as well as McCarthy and Casey (2008) (the latter who studied adolescent romantic relationships), both conclude that involvement in relationships characterized by strong bonds of attachment, in adulthood as well as in adolescence, is likely to lead to reductions in criminal

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involvement and delinquency. However even strong bonds of attachment may be insufficient to counterbalance the destabilizing influence of liberal relationship scripts and intimate partner violence. Liberal scripts, for example, may undercut the desistance potential of romantic unions and may also be directly implicated in exposure to opportunities for crime and delinquency (e.g., to the extent that social contexts such as bars, nightclubs, and parties increase the likelihood of casual sexual encounters as well as representing 'hot spots' for criminal activity; Osgood et al., 1996; Sampson & Lauritsen,1990; Sherman, Gartin,& Buerger, 1989). Furthermore, to the degree that intimate relationships involve violent, coercive interchanges, the potential of even a stable, fairly serious dating relationship to steer the individual clearly in a prosocial direction may be significantly diminished.

As previously stated, there is substantial evidence that SES is associated with the development of these relationship dynamics. Research indicates that disadvantaged youths attempting to forge long-term relationship commitments may face numerous challenges that relate to a lack of resources and social capital as well as less access to adult models of relationship stability (e.g., Browning et al., 2008; Browning & Burrington, 2006; Parker & Reckdenwald, 2008; Wilson, 1987). Compared to the relationship trajectories of youths from middle-class and more advantaged backgrounds, disadvantaged youths are more likely to have sex early and outside of romantic relationships (Browning, Leventhal and Brooks-Gunn 2004; Manning et al., 2005; Ramirez-Valles, Zimmerman, & Newcomb, 1998). Further, disadvantaged youth are more likely to cohabit and cohabit and marry at younger ages than their middle class counterparts (Kennedy and Bumpass 2008). Disadvantaged adolescents are also more likely than middle-class adolescents to express a relatively liberalor tolerant view of casual sexual contact and of romantic relationships in general (Jemmott & Jemmott, 1990, Harding, 2007). The presence of normative climates characterized by such liberal scripts may heighten the pressure on adolescents to adopt similar views and behaviors even though these developments may undermine the stability of later romantic unions (e.g., Majors & Billson, 1992). Exposure to

crime and criminal victimization is also inevitable for many disadvantaged youths, which may

increase the reliance on a defensive posture and a willingness or 'nerve' to use violence as a

means of conflict resolution (e.g., Anderson, 1999; Black, 1983; Kreager, 2007; Markowitz &

Felson, 1998). Although romantic relationships represent a new social context for the

developing adolescent, tactics that have been employed within neighborhood and peer worlds

form a part of the background that individuals bring with them as they begin to form this

distinct form of relationship (Collins & Sroufe, 1999). Research has shown already that peer

norms may influence the likelihood of violence perpetration within the context of intimate

relationships (Simons et al., 1998; Swahn et al., 2008); and indeed, low SES couples are more

likely then high SES couples to report intimate partner violence (Cunradi et al., 2002), yet the

variations in these negative relationship dynamics have not been examined as factors that may

potentially influence the criminal desistance process.

4. CURRENT STUDY

We hypothesize that disadvantaged adolescents will be more likely than middle-class and

advantaged adolescents to report delinquent friends as well as romantic relationships which are

potentially desistance destabilizers, that is, characterized by relatively high levels of intimate

partner violence and liberal relationship scripts. We expect that both socioeconomic

disadvantage and deviant peer climates will influence the development of liberal scripts and

intimate partner violence. Although adolescents typically establish peer groups (delinquent or

otherwise) before dating or having sex, peer relationships may continue to develop as romantic

relationship experiences begin to play an increasingly more important role in daily life. Thus

increasing involvement with delinquent friends is hypothesized to predict increases in negative

relationship dynamics, net of controls for SES, family background and demographic indicators.

The development of these relationship experiences are hypothesized to influence crime

trajectories, net of controls for traditional desistance mechanisms (e.g., marriage and

employment) and other crime correlates. We hypothesize that regardless the level of stability in romantic relationships, liberal scripts and intimate partner violence will predict criminal involvement. Furthermore, we expect that by statistically controlling for these potentially problematic relationship dynamics, the prosocial potential of relationship stability will be diminished in its effect on crime. Analyses are conducted using four waves of panel data from the Toledo Adolescent Relationships Study and multilevel models for change (HLM) which allow for the separation of stable individual differences from the effects of change or development on crime trajectories (see analytic strategy below).   This approach allows us to specifically examine the changing influence of peer context and romantic relationship experiences on crime trajectories over time. These analyses control for more traditional desistance factors and crime correlates including family structure, relationships with parents, cohabiting or married status, education and employment status, and demographic indicators for age, race, and gender.

5. DATA

This research utilizes four waves of panel data from the Toledo Adolescent Relationships Study (TARS), which is based on a stratified random sample of 1,316 adolescents and their parents/guardians. The TARS data were collected in the years 2001, 2002, 2004, and 2006 and contain detailed information on interpersonal relationships with parents, peers, and romantic partners. While panel data studies such as Add Health and the National Youth Survey are well suited to explore within-individual change, TARS' emphasis on the relational aspects of adolescent and young adult relationships presents a unique opportunity for examining the connections between peer context, romantic relationships, and long-term patterns of criminal involvement.[1] The sampling frame of the TARS study encompassed 62 schools across seven school districts. The initial sample was in grades 7th, 9th, and 11th. Students did not have to attend school to be included in the study. The stratified, random sample was devised by the National Opinion Research Center and includes over-samples of African American and Hispanic

adolescents. The initial sample included 1,316 respondents and wave 4 retained 1,088 valid

respondents, or 83% of wave 1. The average age of the respondents was 15 years at wave 1 and

21 years at wave 4. The average time interval separating the first wave from the fourth wave is

about 61 months. The analytic sample (N= 1,066) is based on primarily on respondents who

participated in all four waves of the TARS study.[2]

6. MEASURES

Criminal Deviance

Self-reported crime and delinquency are measured in all four waves with an 8-item scale that

references theft, property damage, burglary, violence, drug trafficking, and drug use. Items refer

to behaviors in the past 12 months. The items in this scale are adapted from the earlier scale

development work of Elliott, Huizinga, and Ageton (1985). Cronbach's alpha for the scale is .74.

The range of the scale is 0 to 24.75 with an overall average of 1.82. Friends' delinquency is

measured across all four waves with an 8-item scale that refers to the behaviors of the five

friends that the respondent "hangs out with most of the time." This scale is measured with the

same seven items as the self-report scale above. Cronbach's alpha for the scale is .80. The range

of the scale is 0 to 44.50 with an overall average of 4.78.[1]

 Problem Relationship Dynamics

We consider two relationship destablizers, liberal relationship scripts and intimate partner

violence. "Liberal relationship scripts" are measured in all four waves with a 4-item scale that

includes: "how often have you had sex with someone who was seeing someone;" "....sex with

someone while you were seeing someone else?;" "…a relationship that was strictly sexual?;"

and "hooked-up" with someone just to have sex that one time?" Original frequency

distributions were highly right-skewed in data. Responses to these items were recoded as

yes/no regarding each behavior.   Cronbach's alpha for the liberal script scale is .90. The range

of the scale is 0 to 4 with an overall average of 0.63. "Intimate partner violence" is measured in

all four waves with a 4-item scale adapted from previous conflict tactic scales (e.g., Straus et al., 1996). The scale asks respondents how often they pushed, slapped, hit, or threw something at a current or recent romantic partner. At each wave, respondents who reported no involvement in romantic relationships were recorded as having "0" incidents of intimate partner violence. Cronbach's alpha for the scale is .88. The range of the scale is 0 to 12 with an overall average of .96 incidents of intimate partner violence.

Traditional Desistance Factors

Relationship stability is used as an indictor of "bonds of attachment" to a romantic partner. Prior research in the social control tradition has not been uniform in how attachment is measured. For example, Sampson and Laub (1993) relied on a composite rating provided by interviewers; McCarthy and Casey (2008) focused on questions indexing 'love.' In several assessments, relationship stability is considered a key dimension, as, for example, in Laub, Nagin, and Sampson's (1998) analyses of within-individual changes in crime associated with years of marriage (see also Duncan et al., 2006; Horney et al., 1995).   While these measurement approaches have varied, the current study measures bonds of attachment with relationship stability, which according to the social control perspective, is a favorable indicator of a relationship that may foster criminal desistance. Stability is measured in all four waves with 2 items that ask: "how long do you think your relationship with X will last;" and "how long have you been in a relationship with X?" Relationships with durations of one year or more which were perceived by respondents as lasting for and additional "two years or more" were considered 'stable relationships' and recorded as such with a time-varying dichotomous variable. In waves in which respondents did not reference a specific relationship, a "0" was recorded for both of the items. Thus, stability scores may vary over time due to changes in dating status or changes in the quality of an ongoing romantic relationship. Thirty-six percent of the sample reported a stable relationship in wave 4 of the data. "Cohabiting/marital status" is measured with a time-varying dichotomous variable. Although prior research suggests that

cohabiting unions are qualitatively different from marriage, the youthfulness of the TARS sample

does not yet provide a substantial number of young married couples for specific analyses; thus

cohabiting and married were combined into one category (24.2% of the sample in wave 4).

"Full-time employment" and "dropped out of high school" are measured in each wave with

dichotomous indicators. Thirteen percent of the sample reported dropping out of high school

while about 32 percent reported full-time employment in wave 4 of the data. Although

dropping out of high school may not influence crime involvement directly (Sweeten, Bushway, &

Patenoster, 2009), it is a proxy for SES and signifies potential economic instability.

Socioeconomic Status

"Disadvantage" is measured at wave 1 with four items from the parent survey. Items refer to

parents who reported less than twelve years of education, receiving government assistance for

needy families (e.g., TANF, food stamps, or a housing subsidy), not having enough money to

make a meal in the past 12 months, and unemployment as a "problem" in their neighborhood.

The content of these items is consistent with previous work that suggests measuring

socioeconomic status with educational, economic, and neighborhood indicators (Krieger,

Williams, & Moss, 1997). These items were summed into an index of disadvantage which ranges

0 to 4. Thirty-six percent of the parents in the sample reported none of these socioeconomic

problems while about 20 percent reported three or more.

Family Background and Demographic Indicators

Family background and demographic indicators are measured at wave 1. Variations in parental

bonding and violence have consistently been shown to influence crime and other risky behaviors

(e.g., Demuth & Brown, 2004). "Parental bonding" is measured with a 3-item scale that

includes: "My parents give me the right amount of affection; "my parents trust me;" and "I feel

close to my parents." Cronbach's alpha for the scale is .80. The scale range is 1 to 5 with an

average of 4.07. "Parental violence" is measured with a single item that asks respondents how

often their parents pushed, grabbed, slapped, or hit them. Responses range (0) never to (5)

every day, with an average of 0.39. Family structure is represented with four dummy variables: two-parents (51.4%), single parent (22.8%), step parent (13.7%), and other family form (12.1%) with two-parents as the reference category. Race/Ethnicity is represented with three dummy variables: White (65%), Black (24%), and non-White Hispanic/Latino (11%), with White as the reference category. Gender distribution in the sample is 49% male, 51% female.

Time

The longitudinal design of current study requires that time-varying observations are demarcated in terms of the length of time that has elapsed between waves. Time is clocked by the number of *months* since the first interview. All respondents have a value of zero for time at first interview and then vary from one another for the three follow-up interviews.

7. ANALYTIC STRATEGY

We begin with a descriptive analysis of SES crime trajectories. The purpose of these analyses is to establish a baseline for interpreting the effects of relationship dynamics in later analyses that model variations in crime over the life course. Next we examine the impact of increasing levels of friends' delinquency on changes in liberal scripts and intimate partner, which are in turn explored as influences on crime trajectories. To model these longitudinal changes, we incorporate the four waves of TARS data into a HLM framework (e.g., Raudenbush & Bryk, 2002; Singer & Willett, 2003), so that the variable representing time (months into study) and the intercept are modeled as fixed effects (level 2 of the HLM model) with random variance components (level 1 of the HLM model). This approach permits us to capture the dynamic associations between relationships, peer context, and crime trajectories. By allowing the intercept to have a random variance component, we model the differences in the estimate of error between-individuals (i.e., heterogeneity), and by allowing time to have a random variance component, we model the differences in the estimate of error within-individuals (i.e., over time). Random variance components for the intercept and time are usually statistically

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significant which indicates variance unexplained by the model. The influence of peers and

romantic relationship experiences are modeled as within-individual variables, which are the

between-individual averages of these variables subtracted from each time-ordered observation.

Between-individual components for delinquent friends, relationship dynamics, and traditional

desistance factors are included in the analyses but are not shown in the models below (see

Appendix 2). Similar to a regression of fixed effects, the within-individual effects are interpreted

as the estimated change in Y given a change in X. This approach controls for the influence of

stable trait differences that may otherwise render the correlation between crime and liberal

relationship scripts, for example, a spurious artifact of a more general underlying risk potential

(e.g., low self-control, Gottfredson & Hirschi, 1990). Two-way interactions between the

variables age, months, and socioeconomic disadvantage are included in the HLM models to take

into account the possibility of SES and age-graded trajectories in crime.

8. RESULTS [Figure 1 here]

We begin by analyzing crime trajectories (see Figure 1). Trajectories are examined by gender and

at two levels of disadvantage: 0 on the index (parents who did not report affirmatively on any of

the disadvantage items); and 3-4 on the index (parents who reported three or more of the

disadvantage items). Means for these trajectories are estimated via regression at age 15, 16, 18

and 21 years (the average age at each of the four waves of data collection). Trajectories for

criminal involvement reveal divergent pathways. Estimated mean levels of criminal involvement

are similar (within gender) for all socioeconomic groups at age 15; however by age 21,

disadvantaged male youths report substantially more involvement in crime, on average, than

was reported in adolescence. A less dramatic pattern of crime escalation is observed for

disadvantaged females. Non-disadvantaged youths, by comparison, although not desisting from

crime, are also not escalating in levels of criminal involvement, which suggests less risk overall in

the lifestyles of middle-class adolescents. Trajectories for friends' delinquency (not shown) also

reveal divergent pathways, with disadvantaged male youths reporting the highest levels of

involvement at age 21, while at age 15, SES differences in delinquent friends are not as

pronounced, similar to what was found for self-reported crime in Figure 1.[3]

[Table 1 here]

Table 1 examines the longitudinal influence of deviant peer climates (friends'

delinquency) on romantic relationship experiences that may 'destabilize' the criminal desistance

process. These analyses focus primarily on the impact of changes in delinquent friends on the

trajectories of liberal scripts and intimate partner violence; family background and demographic

variables are controlled in the models. Model 1 indicates that disadvantaged adolescents have

higher average trajectories for both desistance destablizers, net of controls. Parental bonding

and violence at wave 1 predict significant differences in liberal scripts and intimate partner

violence, as do variations in family structure, race, and age, all in ways that are consistent with

prior research on relationship behaviors. Hispanic is positive and significant in models that do

not control for socioeconomic disadvantage (not shown). Female respondents perpetrate higher

trajectories of intimate partner violence than male respondents, however as other researchers

have pointed out, with a conflict tactics scale such as the one used in the current study, there is

no way to assess the level of physical harm done to the partner, and as a consequence, the

severity of male intimate partner violence may not be accurately depicted in these models (e.g.,

Dobash et al., 1992; Felson, 1996).

Model 2 controls for within and between-individual differences (not shown) in friends'

delinquency. The within-individual effects indicate that youths who, over time, become more

embedded in delinquent peer networks report higher average trajectories of liberal scripts and

intimate partner violence, net of controls. Controlling for friends' delinquency reduces the effect

of socioeconomic disadvantage to non-significant levels in the model predicting liberal scripts.

The effect of months is positive and significant in all models which indicate that, on average,

liberal scripts and intimate partner violence increases over time, net of controls for other

influences. While by no means a comprehensive model of these relationship dynamics, the

results suggest that delinquent friends' play a role in the development of dynamics that may

destabilize the criminal desistance process.

(TABLE 2 HERE)

The growth of these desistance destablizers are examined in Table 2 as within-individual

influences on trajectories of criminal involvement, net of controls for more traditional

desistance factors such as relationship stability and employment. Model 1 includes two-way

interactions between months, age, and disadvantage. Results for the partial effects for

disadvantage indicate that disadvantaged youths report levels of delinquency at age 15 that are

not statistically different from the levels of delinquency of more advantaged and middle-class

adolescents. However when we estimate crime differences 72 months later, at about age 21,

we find that disadvantaged youths are more involved in crime than middle-class adolescents.[4]

These results are net of controls for family background and demographic indictors (not shown in

models). The significant interactions between age and months indicate that older respondents

are less likely to report escalating levels of criminal involvement than compared to younger

respondents.

Model 2 introduces the desistance destablizers, intimate partner violence and liberal

relationship scripts.   The within-individual effects indicate that escalating levels of liberal scripts

and intimate partner violence are associated with higher crime trajectories. Adding liberal

scripts and intimate partner violence to the model explains an additional 12 percent of the

variation in crime trajectories; however the individual effect of liberal scripts is substantially

larger than that of intimate partner violence. Net of controls for liberal scripts and intimate

partner violence, we find that, at age 21, SES differences in crime are no longer significant.

These findings suggest that liberal scripts and intimate partner violence are contributing factors

in the relationship between SES and crime over the life course. Model 2 also shows that, after

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adjusting for the development of liberal scripts and intimate partner violence, disadvantaged youths at age 15 are significantly less delinquent than middle-class youths. This retrospective analysis is instructive for theoretical purposes in that it supports prior research findings that early delinquency may not be sufficient for predicting variations in later criminal behavior (Laub & Sampson, 2003; Piquero & Chung, 2001; Simons et al., 1998).[5]

Model 3 introduces controls for traditional desistance factors. Within-individual effects for relationship stability indicate that movement into a stable relationship is associated with lower average levels of criminal offending, consistent with control perspectives on crime and delinquency. However it appears that the prosocial gains of moving into a stable relationship will, in many cases, be insufficient to counterbalance simultaneous growth in liberal relationship scripts. For example, a one point increase in liberal scripts (on a scale that ranges 0 to 4) would neutralize the significant and negative effect of a stable relationship. Moreover, when we examine the percent of variation in the dependent variable that is explained by stability and liberal scripts, we find that liberal scripts explain an additional 11 percent over and above the impact other desistance factors and crime correlates (results not shown). Stability, on the other hand, explains less than one percent of the variation in life course patterns of criminal involvement. Movement into a cohabiting or marital union is not associated with changes in criminal involvement, perhaps due to the youthfulness of the TARS sample as well as the inclusion of the stability indicator. Dropping out of high school is not significant however gaining full-time employment is significant and reduces crime involvement by a narrow margin.

Model 4 includes friends' delinquency, which explains additional variation in crime trajectories. Friends' delinquency explains employment and relationship stability showcasing the importance of incorporating peer context in assessments of early adult criminal involvement. Liberal scripts, however, are still significantly associated with crime escalation while intimate partner violence is not. The lifestyle choices that liberal scripts may entail such as

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hanging out and "partying" with friends in unstructured environments that may increase one's

risk for criminal involvement, even when someone is already involved in a stable relationship.[6]

9. DISCUSSION

Socioeconomic status and peer relationships have been frequently examined as influences on

risk for delinquency involvement. (e.g., Kreager, 2007; Harding, 2009; Haynie & Payne, 2006).

However few studies have examined the influence of these social network influences on

romantic partner experiences and the implications of such experiences for life course patterns

of criminal involvement.   Most of the emphasis in the "good marriage effects" literature has

been on positive bonds of attachment, but this literature is limited in: a) bracketing off

questions about the role of neighborhood or peer influences on the character of romantic

unions, and b) by failing to move beyond the concept of attachment to consider other

relationship dynamics that may also affect a relationship's prosocial potential.   Thus, the

findings reported above suggest that low SES and peer delinquency are significant influences on

the development of liberal relationship scripts and the experience of intimate partner violence.

This is consistent with a social learning perspective, namely Sutherland's theory of differential

association (1947), but here we consider that variations in exposure to poverty and delinquent

friends not only influence "definitions favorable to the violation of law" directly, but also

attitudes and conduct in the romantic realm that contribute further to the individual's life

course pattern of criminal activity.   Findings indicate that disadvantaged and middle-class

adolescents report similar levels of criminal involvement and friend delinquency, however by

age 21, more crime and peer deviance is reported among the most disadvantaged respondents.

Increasing involvement with delinquent friends was positively associated with trajectories for

intimate partner violence and liberal relationship scripts. In turn, these relationship dynamics

predicted higher than average levels of criminal involvement in the early adult phase of the life

course. Although the effect of intimate partner violence on crime was no longer statistically

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significant after adjusting for variations in friends' delinquency, liberal relationship scripts emerged as robust to multiple controls for traditional desistance factors and other crime correlates. Results suggest that liberal relationship scripts may destabilize the criminal desistance process by not only counterbalancing the prosocial gains associated with a stable relationship, but also by increasing the level of risk involved in one's routine activities and peer associations.

The current study focused primarily on the respondent's own attitudes and behavior as reported across four waves of interviews. However, future research should consider characteristics of the romantic partner, including their background of delinquency/criminal involvement (Haynie et al., 2005; Capaldi, Kim, & Owen, 2008; Krueger et al., 1998; Simons et al., 2002). The research on gender and crime, for example, suggests that most men will "marry up" in terms of selecting a partner who is less delinquent than they are, meaning that the capacity for heterosexual relationships to alter criminal involvement may vary significantly between men and women. Yet the results of the current study also highlight the utility of exploring other aspects of the partner's normative orientation, including what we have called "liberal relationships scripts" and a background that includes intimate partner violence. Such a dyadic focus and attention to multiple relationship dynamics will serve to round out our understanding of conditions under which romantic partnerships serve well the desistance process.

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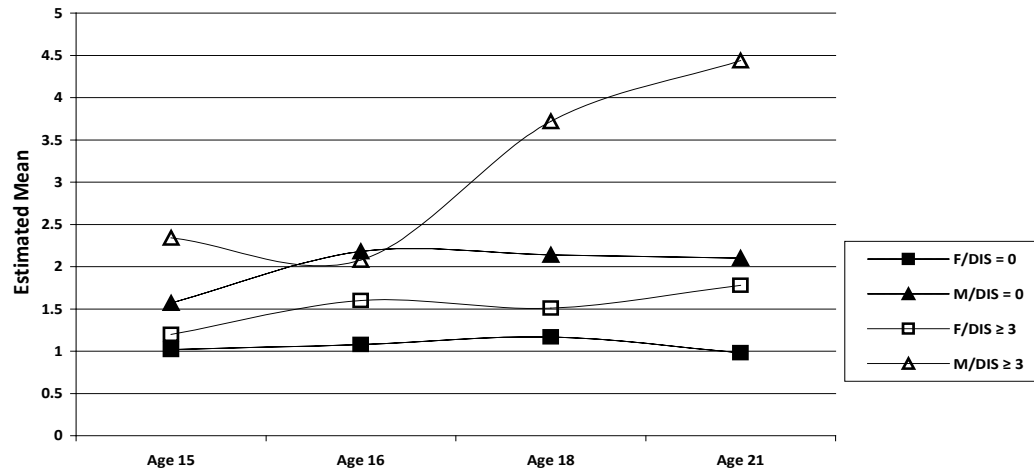# Fg. 1. Crime Trajectories Stratified by SES and Gender

Table 1. HLM Models of Desistance 'Destabilizers'								
	Liberal Relationship Scripts				Intimate Partner Violence			
	b	S.E.	b	S.E.	b	S.E.	b	S.E.
	Model 1		Model 2		Model 1		Model 2	
Within-Individual Effects:								
Friends' Delinquency			0.020***	0.003			0.024***	0.005
Between-Individual Effects:								
Socioeconomic Disadvantage	0.063**	0.024	0.042	0.022	0.111**	0.034	0.095**	0.034
Family Background								
Parental Bonding	-0.147***	0.038	-0.069	0.036	-0.123*	0.056	-0.070	0.055
Parental Violence	0.042	0.037	0.026	0.034	0.129*	0.053	0.120*	0.052
Single-Parent	0.168*	0.067	0.089	0.062	0.253**	0.097	0.193*	0.096
Step-Parent	0.216*	0.078	0.136	0.071	-0.016	0.113	-0.077	0.111
Other Family Structure	0.295**	0.086	0.230**	0.079	0.290*	0.126	0.248*	0.124
(Two Bio-Parents)								
Demographic Indicators								
Black	0.230***	0.068	0.221***	0.062	0.439***	0.099	0.441***	0.097
Hispanic/Latino	0.106	0.085	0.012	0.078	0.202	0.124	0.139	0.122
(White)								
Male (Female)	0.318***	0.050	0.188***	0.047	-0.273***	0.073	-0.372***	0.073
Age	0.132***	0.014	0.126***	0.013	0.085***	0.021	0.081***	0.021
Rates of Change								
Months	0.009***	0.001	0.008***	0.001	0.004***	0.001	0.004***	0.001
Random Variance Components:								
Intercept	0.534***	0.044	0.422****	0.039	0.520***	0.109	0.520***	0.109
Months	0.0003***	0.000	0.0003***	0.000	0.0000	0.000	0.0000	0.000
R-square	0.123		0.203		0.058		0.078	
N = 1,066								

Notes: Between-individual effects for friends' delinquency are included in the models but are not shown. Comparison categories appear in parentheses. Intercepts for the fixed effects portion of the model are estimated but not shown. p.*<.05, **<.01, ***<.001.

Table 2. HLM Models of Criminal Involvement

	Model 1 b	Model 1 S.E.	Model 2 b	Model 2 S.E.	Model 3 b	Model 3 S.E.	Model 4 b	Model 4 S.E.
Within-Individual Effects:								
Desistance Destabilizers								
Liberal Relationship Scripts			0.423***	0.063	0.407***	0.064	0.245***	0.058
Intimate Partner Violence			0.086*	0.035	0.089*	0.035	0.020	0.032
Traditional Desistance Factors								
Stable Relationship					-0.367*	0.180	-0.138	0.164
Cohabiting/Married					0.131	0.246	0.222	0.221
Full-Time Employed					-0.391*	0.196	-0.197	0.177
Dropped Out of High School					0.157	0.290	-0.023	0.261
Friends' Delinquency							0.247***	0.009
Between-Individual Effects:								
Socioeconomic Disadvantage								
Disadvantage at 15 years	-0.125	0.997	-0.256*	0.088	-0.303***	0.090	-0.263*	0.075
Disadvantage at 21 years	0.398**	0.134	0.223	0.128	0.141	0.130	0.041	0.102
Family Background + Demographics								
Controlled for in all models								
Rates of Change								
Months X Age	-0.005***	0.001	-0.005***	0.001	-0.004***	0.002	-0.001	0.001
Months X Disadvantage	0.007***	0.002	0.007***	0.002	0.006***	0.002	0.004*	0.002
Random Variance Components:								
Intercept	7.090***	0.580	4.421***	0.469	4.356****	0.467	2.132***	0.343
Months	0.003***	0.000	0.002***	0.000	0.002***	0.000	0.002***	0.000
R-square	0.067		0.193		0.203		0.435	
N = 1,066								

Notes: Between-individual variables for delinquent friends' and the desistance destabilizer variables are included but not shown in the models. Partial effects for socioeconomic disadvantage are estimated at 0 months (15 years) and at 72 months (21 years). Age is centered on its mean. Partial effects for months and age are included in the interaction models but are not shown. Models include controls for wave 1 family background and demographic indicators. Intercepts for the fixed effects portion of the model are estimated but not shown. $p.* <.05, ** <.01, *** <.001$.

Appendix 1. Descriptive Statistics

	Mean or Percent	Standard Deviation	Range
Criminal Deviance (waves 1-4)			
Self-Reported Crime/Delinquency	1.82	3.08	0-24.75
Friends' Delinquency	4.78	5.94	0-44.50
Problem Relationship Dynamics (waves 1-4)			
Liberal Relationship Scripts	0.63	0.89	0-4
Intimate Partner Violence	0.96	1.22	0-12
Traditional Desistance Factors (waves 1-4)			
Stable Relationship	36.30%		
Cohabiting/Married	24.20%		
Full-Time Employed	32.55%		
Dropped Out of High School	13.23%		
Socioeconomic Disadvantage (wave 1)	1.29	1.24	0-4
Family Background (wave 1)			
Parental Bonding	4.07	0.69	1-5
Parental Violence	0.32	0.72	0-5
Single-Parent	22.80%		
Step-Parent	13.70%		
Other Family Structure	12.10%		
Two Bio-Parents	51.41%		
Demographic Indicators			
Black	24.02%		
Hispanic/Latino	10.98%		
White	65.01%		
Male/Female	46.90/53.10%		
Age (wave 1)	15.22	1.73	12-19
Age (wave 4)	20.37	1.73	17-24
N = 1,066			

Appendix 2. Zero-Order Models of Criminal Involvement: Between-Individual Effects

	b	S.E.
Between-Individual Effects		
Problem Relationship Dynamics		
Liberal Relationship Scripts	1.786***	0.092
Intimate Partner Violence	0.648***	0.075
Traditional Desistance Factors		
Stable Relationship	-0.603	0.411
Cohabiting/Married	1.100*	0.469
Full-Time Employed	0.907	0.487
Dropped Out of High School	4.045***	0.578
Friends' Delinquency	0.387***	0.011
Socioeconomic Disadvantage	0.164*	0.077
Family Background		
Parental Bonding	-0.967***	0.136
Parental Violence	0.272*	0.133
Single-Parent	0.761**	0.240
Step-Parent	0.400	0.291
Other Family Structure	0.469	0.308
(Two Bio-Parents)		
Demographic Indicators		
Black	0.129	0.228
Hispanic/Latino	1.104***	0.311
(White)		
Male (Female)	1.128***	0.189
Age	0.120*	0.055
N = 1,066		

Notes: Fixed and random effects for months and the intercept are included in the zero-order models but are not shown. p.*<.05, **<.01, ***<.001.

End Notes

[1]Based on Census data, the socio-demographic characteristics of the Toledo metropolitan area closely parallel those of the nation in terms of race (13% in the Toledo MSA and 12% in the U.S. are African American); education (80% in the Toledo MSA and 84% in the U.S. are high school graduates); median family income ($50,046 in the Toledo MSA and $50,287 in the U.S.); and marital status (73.5% in the Toledo MSA and 75.9% in the U.S. are married couple families). Structured interviews were conducted for using laptop computers and software that contained the survey items. The sampling frame was divided into 18 strata by grade, race/ethnicity, and sex. When students who were initially selected dropped out of the study, the sample was expanded by selecting the "next" unselected student from the same stratum. Sampling weights were calculated based on the inverse probability of selection.

[2] There are 1,088 respondents who participated in the first and fourth waves of the TARS study. Logistic regression revealed that age at wave 1 is positively related to the likelihood of missing data in subsequent waves however the strength of this relationship is not substantial (logit:(exp)b, 0.37 = 1.45, p<.05, r-square =.023). Twenty-two respondents who identified as a minority other than Black or Hispanic were deleted because of the statistical and theoretical difficulties in comparing this small subset of respondents to the rest of the sample. Of the remaining 1,066 respondents in the analytic sample, over 94 percent also participated in all waves 2 and 3; the missing cases represent less than 2 percent of the total number of person-period observations in the study. See Appendix 1 for descriptive statistics of the variables under investigation.

[3] Drug use is reported more frequently than other crimes which may result in an overrepresentation of heavy drug users on the high end of the crime scale. Thus, crime trajectories were re-estimated without drug use in the scale. Results from these analyses were similar to Figure 1; however without the drug use item in the scale, the more advantaged adolescents, both males and females, evidenced a pattern of desistance between age 18 and age 21.

[4] Partial effects for the interactions are estimated using targeted centering on the variable months (DeMaris, 2004). The effect of disadvantage in the model is shown being estimated at average age, and at 0 and 72 months.

[5] Between-individual effects for zero-order models of crime are shown in Appendix 2. The effects in these models vary from the within-individual effects and are interpreted simply as a measure of association between averages.

[6] Criminal behavior in this sample of respondents does not conform to a normal statistical distribution and is over-dispersed with the majority of respondents reporting no criminal involvement in most waves. Models for crime were re-estimated using a logarithmic transformation on the crime scale, which eliminated the significant interaction between SES and months, however the effects for the other variables were very similar to the findings in Table 2. Models for crime were also re-run without the drug use item included in the scale. Results were again very similar to the findings in Table 2.