Is stalking a learned phenomenon? An empirical test of social learning theory

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A B S T R A C T
Purpose: We examine the extent to which components of social learning theory (i.e., definitions, differential reinforcement, and differential association/modeling) predict stalking victimization and perpetration using survey data from a large sample of college students.
Methods: Among a sample of 2,766 college students, logistic regression models were estimated to analyze the relationships between social learning theory and stalking perpetration and victimization.
Results: Results suggest that victimization and perpetration are functions of social learning. The findings also indicated that females were significantly more likely to be both stalking victims and perpetrators.
Conclusions: Regarding stalking perpetration and victimization, our results suggest that there may be responses, attitudes, and behaviors that are learned, modified, or reinforced primarily through interaction with peers. Overall, social learning theory concepts appear to be important predictors of stalking perpetration and victimization that help to develop theoretical explanations for stalking.

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Introduction
While stalking definitions vary among researchers and legislation, stalking is generally defined as unwanted, harassing, and threatening behavior that occurs repeatedly (Tjaden & Thoennes, 1998). Some stalking definitions require victims to experience fear (Tjaden, Thoennes, & Allison, 2000) whereas others do not (Jordan, Wilcox, & Pritchard, 2007). Unlike most crimes, stalking is generally comprised of otherwise legal behaviors. Collectively, these behaviors are considered illegal only when a reasonable person would consider the behavior to be threatening, harassing, and frightening (California Penal Code § 646.9, 1990; Saunders, 1998). Among a myriad of behaviors, some common forms of stalking include showing up at places uninvited where the person being stalked may be, leaving items and/or gifts for that person, and repeatedly communicating using telephones and/or the Internet in a manner undesired by the person receiving the communication (Spitzberg & Cupach, 2007). Repeated exposure to such unwanted pursuit behaviors often results in victims experiencing serious physical consequences (i.e., headaches, nausea, appetite and/or sleep disruption) and psychological effects (i.e., paranoia, anxiety, nightmares, suicidal thoughts) (Pathé & Mullen, 1997; Spitzberg & Cupach, 2003).

Given that stalking behaviors often produce unpleasant and potentially dangerous consequences for victims, it is important to examine why individuals become stalking perpetrators or victims. However, theoretical tests of stalking victimization and perpetration have been largely overlooked by prior research. The current study is the first to empirically examine stalking, both perpetration of stalking behavior and experiencing stalking victimization, by testing propositions from social learning theory (Akers, 1973; Bandura, 1977; Sutherland, 1939). While there is a sizeable body of theoretical and empirical literature on social learning theory with regard to a range of deviant and criminal behavior, this paper reports the first study of stalking victimization within the framework of social learning theory. Considering the empirical support for social learning theory to explain intimate partner violence (IPV) (Sellers, Cochran, & Winfree, 2007) and the evidence that suggests stalking is often committed in the context of IPV (Douglas & Dutton, 2001), the current study aims to determine whether stalking behavior can be explained by social learning theory.

The link between stalking and intimate partner violence
Stalking and IPV share many similar qualities given that both crimes are characterized by unwanted, harassing, and frightening and/or threatening behavior. Defined generally, IPV is the physical, sexual, and/or psychological abuse of an intimate partner whereas stalking refers to repeated, unwanted, and threatening pursuit behaviors (Coker, Smith, Bethea, King, & McKeown, 2000; Tjaden & Thoennes, 1998). Additionally, much of stalking and IPV occurs over a period of time. By definition, stalking must occur repeatedly (i.e., more than once) while IPV may occur on a single occasion; however, the nature of IPV (i.e., the cycle of violence) and prior research suggests that IPV is
largely characterized by repeated abuse (Tjaden & Thoennes, 2000). Although stalking and IPV are separate crimes that occur independently, they often co-occur among current or former intimate partners (Douglas & Dutton, 2001). Furthermore, exposure to IPV produces negative effects for victims that are similar to stalking victimization, such as anxiety, depression, headaches, loss of appetite, and stomach ulcers (Campbell et al., 2002; Coker et al., 2000).

Further evidence linking stalking and IPV suggests that both are crimes of power and control. While scholars have long established that IPV is a crime of power and control (Bograd, 1990; Carlson, 1996; Dutton & Strachan, 1987; Follingstad, Wright, Lloyd, & Sebastian, 1991; Stets & Piro-Good, 1990), stalking has only recently been recognized as such (Brewster, 2003). Researchers and practitioners have identified specific tactics IPV perpetrators use to manipulate and control their victims (i.e., intimidation, coercion, threats), many of which represent the controlling behaviors employed by stalkers (Brewster, 2003). Based on the connection between stalking, IPV, and control, Douglas and Dutton (2001) suggest that stalking may be representative of the cycle of violence, which is commonly used to demonstrate the phases of IPV (tension-building, crisis, and contrition). Douglas and Dutton (2001) further speculate that the tension-building phase of stalking may be characterized by less severe – yet intimidating – behaviors (i.e., phone calls, threats), the crisis phase elicits more severe actions (i.e., physical assault), and the contrition phase exhibits apologetic conduct (i.e., leaving unwanted gifts).

While most research treats stalking and IPV as separate phenomena, scholars have recently begun to empirically examine the relationship between stalking and IPV by assessing: (1) the extent to which stalking victims report being stalked by an intimate partner, (2) the stalking behaviors of IPV perpetrators and the IPV behaviors of stalking perpetrators, and (3) the stalking experiences of IPV victims and the IPV experiences of stalking victims. While stalking can also occur between non-intimate partners (McEwan, Mullen, MacKenzie, & Ogloff, 2009), survey data from stalking victims suggest that stalking is more likely to occur between current or former intimate partners, especially in certain populations. Among college students, between one-third (Spitzberg & Rhea, 1999) and three-quarters (Haugard & Seri, 2001) of stalking victims were pursued by former intimate partners. Among the general public, women were more likely than men to report being stalked by a spouse or ex-spouse (38% of female victims versus 13% of male victims) (Tjaden & Thoennes, 1998). Overall, a substantial portion of stalking victims (approximately 50% to 60%) are pursued by a current or former partner (Douglas & Dutton, 2001).

Research examining the stalking behaviors of IPV perpetrators and the IPV behaviors of stalking perpetrators and victims is underdeveloped. Among men and women charged with domestic violence, 30% admitted to stalking their romantic partner (Burgess et al., 1997). Among a sample of stalkers, 65% had perpetrated IPV (Kileen & Dunn, 1998). Furthermore, stalkers who pursued former intimate partners were more likely to make threats (Meloy & Gothard, 1995) and stalkers who reported being attacked to their victims were more likely to be violent (80%) compared with those who were not attacked to their victims (55%) (Schwartz-Watts & Morgan, 1998). Additionally, IPV victims were likely to report stalking victimization (Mechanic, Uhlmansek, Weaver, & Resick, 2000) and stalking victims were likely to experience IPV (Logan, Leukfeld, & Walker, 2000). According to the National Violence Against Women survey (NVAWS), 81% of women stalked by an intimate partner were also physically assaulted by the partner (Tjaden & Thoennes, 1998). Given the conceptual and thematic links between stalking and IPV, theoretical explanations of IPV may also successfully explain stalking victimization and perpetration.

Theoretical framework

For nearly two decades scholars have developed a substantial body of literature on stalking; however, direct tests of theoretical explanations of stalking behavior are surprisingly scarce. To date, routine activities theory (Fisher, Cullen, & Turner, 2002; Mustaine & Tewksbury, 1999) and self-control theory (Fox, Gover, & Kaukinen, 2009) have received some support as explanations of stalking victimization, whereas attachment theory has been used with some success to predict stalking perpetration (Kileen, Birmingham, Solberg, O'Regan, & Meloy, 1997). The relative dearth of tests of theories of stalking victimization and perpetration has resulted in an incomplete understanding of this complex crime, and additional theoretical tests are necessary to understand the causative factors in the processes of stalking victimization and perpetration. Although hypothesis testing with cross-sectional data cannot fully address issues of causality, this is nevertheless a reasonable preliminary step in determining whether stalking may be associated with social learning processes.

Considering the link between stalking and IPV (Douglas & Dutton, 2001), theoretical explanations for IPV may also account for stalking. Variations of social learning theory have demonstrated some support as theoretical explanations for IPV perpetration and victimization (i.e., intergenerational transmission of violence). Social learning theory suggests that crime is a function of social factors, including differential association (e.g., criminal behaviors of significant others, especially peers), modeling (e.g., imitating the behavior of others), differential reinforcement (e.g., balance of costs and benefits of crime), and definitions (e.g., beliefs and values about crime) (Akers, 1973; Bandura, 1977; Sutherland, 1939). Essentially, social learning theory posits that crime is a social phenomenon that is learned largely by interacting with intimate groups (i.e., peers) whereby a criminal or delinquent actor models and imitates deviant behavior of fellow group members, including their techniques and rationalizations regarding crime. As these interactions within deviant groups become more frequent and more important to the actor, a process of differential reinforcement increases the likelihood that deviant behavior will persist over time. Eventually, definitions favorable to criminal behavior outweigh unfavorable definitions, suggesting that the actor's attitudes with respect to the wrongfulness of his or her actions are rewritten or reorganized to incorporate the new patterns of deviance. This process may also implicate related intellectual or emotional processes, such that deviant behavior is increasingly likely to be viewed as necessary, normal, or advantageous. As the actor differentially associates with more like-minded, deviant peers, these processes may become recursive.

However, the relative behavioral influence stemming from the process of social learning is not necessarily expected to manifest in observed criminal history, patterns of abuse, or other discrete behavioral indicators; endorsing stalking perpetration or victimization can be measured directly by assessing attitudes, opinions, and perceptions, especially with respect to peer relationships. While some research examines the effects of social learning theory via survey questions about the proportion of deviant peers or behavioral self-reports, prior literature has also measured the theoretical tenets by assessing attitudes or perceptions (Boeringer et al., 1991; Sellers et al., 2005). According to social learning theory, one's perception of a peer's behavior and that peer's reaction to specific behaviors are more influential and thus more important than the actual behavior itself. In other words, an individual's belief about how his or her friends would react to that individual's deviant behavior is the overriding factor that may affect the individual's behavior. If the individual does not perceive any peer influences that affect his or her definitions, differential reinforcement, or differential association/modeling, then peer influences regarding stalking perpetration or victimization must not play a role in the stalking behavior.

Although many tests of social learning theory feature "traditional" peer group deviance, such as adolescent delinquency, the theory may hold considerable promise for understanding the etiology of crimes that are not usually studied in the context of peer interactions. For example, under the umbrella of social learning theory, scholars suggest that IPV perpetration and victimization are behaviors learned by
experiencing or witnessing abuse during childhood (e.g., the intergenerational transmission of violence) and are also related to peer attitudes and behavior (Boeringer, Shelan, & Akers, 1991; Gover, Kaukinen, & Fox, 2008; Jankowski, Leitenberg, Henning, & Coffey, 1999; Langhinrichsen-Rohling, Hankla, & Stormberg, 2004; Marshall & Rose, 1988; Sellers et al., 2005, 2007). While it is unlikely that stalking victims and perpetrators learn their behavior during childhood, it is plausible that some stalking-related behaviors, attitudes, or reactions (e.g., rationalization) are observed early in the life course, similar to children who witness domestic violence and then become victims or offenders themselves in adulthood. Additionally, the limited theoretical evidence on stalking suggests that disorders of attachment, which begin in childhood but manifest much later as relationship dysfunction, could be helpful in understanding the evolution of stalking over the life course (Patton, Nobles, & Fox, 2010; Douglas & Dutton, 2001). For example, disorders of attachment may include insecure-anxious and insecure-avoidant attachment styles. Insecure-anxious attachment can manifest as jealousy, paranoia, and a greater need for contact while insecure-avoidant attachment often results in indifference, defiance, and a greater emotional distance (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969; Meloy, 1996). Within this framework, the critical elements of the social learning process may begin early but remain latent into adolescence, when exposure to differential associations and schedules of reinforcement influence other factors, such as opportunity, normative expectations, and perceptions of social gratification, that collectively predict stalking victimization and perpetration. Thus, although it may be rooted in early childhood experiences for some individuals, stalking behavior may be primarily learned through the mechanisms specified in social learning theory by post-childhood relationships, attitude development, reinforcement, and imitation.

Social learning theory and stalking perpetration

Because social learning theory was originally designed to explain offending (and related) behavior (Akers, 1973; Bandura, 1977; Sutherland, 1939), applying the theory to stalking perpetration is consistent with its established theoretical principles and prior empirical tests. While social learning theory has not yet been used to examine stalking, the theory has been primarily tested to explain group-related deviance (i.e., smoking, drinking, drug use, gang involvement) and has rarely been employed to examine non-group phenomena (but see Sellers et al., 2007). Along these lines, Sellers et al. (2007, p. 111) recently suggested that future research tests “social learning theory in which the dependent variable is an act that is normally committed in isolation rather than in a general social context should provide a more demanding test of social learning principles.” Stalking is one such type of crime, since it is primarily committed individually, rather than in or by a group. If social learning theory can predict stalking perpetration, then we would expect that stalkers will imitate the behavior of their peers that perpetrate stalking (modeling), socialize with others that stalk (differential peer association), adopt attitudes favorable to stalking (definitions), and balance the risks and rewards associated with stalking (differential reinforcement). According to Akers’ general theory (1973, 1998), crime is learned by social processes whereas criminal behaviors are not necessarily committed in social settings. Therefore, we offer the first application of social learning theory to stalking perpetration.

Understanding stalking perpetration in terms of peer influence requires attention to several areas of development and socialization over the life course. First, stalking behavior may be intentionally or unintentionally modeled and imitated. For example, some individuals may perceive family violence as normal or healthy based on prior experiences, and thus carry forward these behaviors into adulthood. Children may also be socialized by the media to endorse attitudes that are favorable to stalking celebrities (McCutcheon, Scott, Aruguete, & Parker, 2006; Spitzberg & Cupach, 2008). Furthermore, some people may misperceive stalking as an expression of dedication, loyalty, or love for a potential mate who has not yet realized his or her true feelings (Sinclair & Frieze, 2000). Second, stalkers may accidentally or purposely associate with like-minded peers, as in self-selecting groups or subcultures (e.g., fraternities, gangs, or certain occupations) that promote biased views toward relationships and gender roles. Third, definitions may be shaped and adapted as a result of the prior two factors, as individuals reconsider their own perspectives on the wrongfulness of unwanted pursuit of a romantic interest. Finally, stalking perpetrators, increasingly involved and committed to the behavior, may decide that the perceived benefits of stalking are increasingly worth the risks. This differential reinforcement may account for persistence on the part of the perpetrator despite the escalating severity of reactions from the victim, even after the justice system becomes involved.

Examining social learning theory’s ability to predict stalking perpetration is important for theoretical advancement and practical policy implications. The dominant perspective among many criminologists suggests that offenders do not tend to specialize in violent behavior (Blumstein, Cohen, Das, & Moitra, 1988; Piquero, 2000) and, therefore, it may be argued that theoretical variables predicting one crime type can successfully predict another. While the lack of specialization argument accurately characterizes the offending patterns of some offenders, this finding may be overstated and some research argues that specificity and generality in offending may not be mutually exclusive (Lussier, 2005). Certainly, a long line of empirical testing has yielded support for and against a variety of theories to predict various types of crimes, including macro-level theories such as social disorganization, strain, economic deprivation, routine activity, rational choice, social altruism, subcultural theories, and micro-level theories such as general theory of crime, social learning theory (see meta-analyses by Pratt & Cullen, 2000, 2005; Pratt et al., 2009). In fact, some research that examines the overlap between committing intimate partner violence (which is closely related to stalking) and other crimes suggests a fundamental difference, which supports the “uniqueness of partner violence relative to other crime and violence” (Moffitt, Krueger, Caspi, & Fagan, 2000, p. 199).

The publication of the first major test of social learning theory on adolescent substance use (Akers et al., 1979) had as its subtitle, “a specific test of a general theory.” Since then, the theory has been tested on a variety of dependent variables, but, as it is true for other theories as well, the dependent variable in many of those tests have been toward the adolescent and non-violent deviance end of the scale. Testing the theory with stalking behavior provides another “specific test” of the general theory that expands the range of deviant behavior for which the theory has been empirically examined, without regard to the question of whether or not offenders specialize in stalking. The scope claims of a general theory of crime, and deviance is examined by testing its empirical applicability to a range of offending behavior from minor to serious. Testing the theory with stalking behavior provides both another test with regard to a specific type of deviant behavior and adds additional evidence for the claim to be a general theory. Collectively, the theoretical and empirical evidence suggests a need to continue to conduct theory tests of specific types of crime. Therefore, the current study extends this line of work by testing the effects of social learning theory to stalking perpetration.

Social learning theory and stalking victimization

While social learning theory was not intended as a theory of victimization, we argue that the theory can be readily extended to account for crime victimization in general for several reasons. First, social learning theory is a general theory of behavior comprised of tenets that can logically be applied to crime victimization (e.g., indicating strong face validity). Like offending, the experience of victimization may also be shaped by the beliefs (definitions),
behaviors (differential association/modeling), and perception of net benefits versus costs (differential reinforcement) of significant others (i.e., peers) regarding stalking. In other words, just as offenders can learn to act criminally, victims can also learn to adopt beliefs, behaviors, and perceptions that may put them at risk of victimization. Second, given that offenders are often also victims (Lauritsen, Sampson, & Laub, 1991; Lauritsen & Laub, 2007), some other general theories of criminal behavior (e.g., self-control theory) have recently and successfully been extended to explain victimization (Schreck, 1999; Stewart et al., 2004). While there is no empirical evidence, to date, that suggests stalking victims are also likely to become offenders, or vice versa, there is evidence to suggest generally that theories explaining offending may also account for victimization.

Finally, empirical evidence suggests that explanations that are compatible with, or variations of, social learning theory (i.e., intergenerational transmission of violence hypothesis) have successfully explained IPV victimization, as described earlier (Gover et al., 1999; Stewart et al., 2004). As Jensen and Brownfield (1986, p. 87) have stated, “victimogenic” variables are very much the same as “criminogenic” variables found in explanations of offending behavior. Also, Cullen, Wright, Gendreau, and Andrews (2003) proposed that exposure and proximity to offenders increased the risk of victimization while differential association and social learning theories propose that the same variables increase the chance of criminal behavior. If social learning theory accurately describes processes associated with stalking victimization, then we would expect stalking victims to imitate the behavior of their peers that are stalked (modeling), socialize with others that are stalking victims (differential peer association), adopt similar attitudes toward stalking (differential definitions), and balance the risks and rewards associated with stalking victimization (differential reinforcement).

Experiences for stalking victims may sometimes be characterized as terrifying and isolating. Thus, at first glance, the applicability between social learning theory and stalking victimization may seem obscure or counterintuitive. However, careful examination reveals the nature of this relationship. A central premise is that although stalking may be underreported to officials, victimization certainly does not occur, generally speaking, in a vacuum. It is precisely because victims rely upon peers for advice, support, and recovery that social learning represents an important part of stalking victimization. First, stalking victims may, knowingly or unknowingly, model and imitate fellow victims. In the former case, an individual may model peer behavior because the peer’s specific reaction to previous stalking victimization is seen to be strong, independent, or efficacious. In the latter case, an individual may unwittingly model general peer behavior without a priori knowledge of that peer’s specific victimization experiences because the peer is influential in other aspects of the victim’s life. Second, definitions may adapt accordingly in the process of forming differential associations with like-minded, fellow victims. Finally, the victim may experience a shift in differential reinforcement with respect to the rewards and punishments from stalking. Although it seems unlikely that most individuals would consider being stalked to be a “rewarding” experience in the usual sense, gaining first-person experience with stalking may lead an individual to classify the punishments as even greater than he or she believed possible prior to their own victimization.

Extending social learning theory to predict stalking victimization is also important for theoretical advancement and practical policy implications. Crime victims in general, and stalking victims in particular, may learn to adopt definitions and attitudes favorable to victimization and they may also experience positive reinforcement and modeling behaviors that increase the propensity to be victimized. It may be argued that victimization is contingent upon the opportunity to be victimized and interaction with motivated offenders, which draws from the routine activities framework. However, these two theoretical perspectives may interact in some ways. For example, individuals who adopt positive beliefs about victimization may proactively associate with those who have been victimized, which may ultimately lead to an elevated risk of being victimized themselves (e.g., through increased associations with known offenders). It is important to note that testing theoretical explanations for victimization should not be interpreted as support for victim blaming (see also Schreck, 1999). Instead, this line of work has practical implications aimed to identify and reduce or eliminate the common factors that are associated with crime victimization. For example, if social learning theory is a successful predictor of stalking victimization, anti-stalking campaigns may be targeted toward educating individuals (in this case, college students) about the dangers of stalking and possible self-protective measures, in addition to helping college students to identify peers who may be at risk. Given the importance for theoretical advancement and potential practical implications, the current study also offers the first test of social learning theory and stalking victimization.

Sample

A random sample of 15,000 college students from the population of 50,701 students attending a large southeastern university was e-mailed an invitation to participate in a web-based survey regarding crime and violence. Of these, a total of 2,783 students participated voluntarily, which represented a 19% response rate. While the response rate is relatively low, the rate is consistent with other web-based survey research, particularly without respondent incentives (Nobles, Fox, Piquero, & Piquero, 2009; see also Couper, 2000). Despite the lower response rate, the sample demographics were similar to the population. For example, 58% of survey respondents were female (compared to 53% of the population) and 76% were White (compared to 65% of the population).

Measures

Stalking perpetration and victimization

Consistent with prior research (Tjaden & Thoennes, 1998), stalking was defined as harassing, intrusive, frightening or threatening, and unwanted behavior that occurred on more than one occasion (excluding communication from bill collectors, solicitors, etc.). Respondents answered a series of questions measuring stalking victimization and then responded to an identical set of items assessing stalking perpetration. Respondents were first presented with the definition of stalking, which emphasized to respondents that stalking consists of harassing behavior that is frightening/threatening, intrusive/unwanted, and committed on more than one occasion. While some research avoids using the term “stalking” and suggests that the term may bias responses (Haugaard & Seri, 2003), other research indicates that wording does not influence responses regarding being “stalked” or being “repeatedly followed and/or harassed” (Phillips, Quirk, Rosenfeld, & O’Connor, 2004, pp. 80–81). Next, respondents were presented with 11 items measuring possible dimensions of stalking victimization (e.g., “has any one person ever...”) and the 11 items were presented again to measure stalking perpetration (e.g., “have you ever done the following to one person...”). The survey included skip patterns such that respondents were asked to report each stalking victimization and perpetration episode separately. Therefore, if a respondent had been stalked by (or had stalked) multiple people, they were directed to additional pages which allowed them to respond to the same set of questions for each episode. For example, in terms of victimization, the instructions informed respondents that although they may have experienced stalking from multiple people, they were asked to report their experiences from only one stalker and they would have the opportunity to respond to questions about other stalkers. Although respondents were permitted to provide information about multiple
stalking victimization and perpetration experiences, the analysis for the current study exclusively examined the first stalking victimization and perpetration episode. This decision was driven by the data, given that few respondents reported multiple victimization episodes (10.57% reported a second stalker and 0.78% reported a third stalker) or perpetration episodes (7.2% reported a second victim and 2.7% reported a third victim).

Nine of the 11 items were from the NVAWS (Tjaden & Thoennes, 1998) and two items were included to measure cyber-stalking (e.g., unwanted electronic messages and unwanted messages/pictures posted to internet websites). The items included: (1) followed, watched, or spied on, (2) stood outside home, school, or workplace, (3) showed up at a place uninvited, (4) vandalized property or destroyed something, (5) sent unsolicited letters, written correspondence, or unwanted emails, (6) made unwanted phone calls, (7) left unwanted messages, (8) left unwanted items, (9) tried to communicate in other ways, (10) sent unwanted messages electronically, and (11) posted unwanted messages/pictures to internet websites. Response options for each of the items (for perpetration and victimization) were never (=0), once (=1), and more than once (=2). Responses from the 11 items were summed and dichotomized separately for perpetration and victimization such that a summed score of two or more indicated stalking victimization/perpetration (meaning that one behavior occurred more than once or at least two behaviors occurred). Cronbach’s alphas indicated high reliability for stalking victimization (0.893) and perpetration (0.861).

Social learning variables

A series of nine variables were used to reflect the major components of social learning theory, as outlined by Akers (1973, 1998; Akers et al., 1979). More specifically, items were designed expressly to operationalize the main components of social learning theory, including definitions favorable and/or unfavorable to, stalking perpetration and stalking victimization, differential reinforcement, and differential association/modeling. Definitions were measured separately for stalking perpetration and victimization. Definitions (perpetration), endorsing favorable or unfavorable beliefs about stalking behavior was measured by a single item asking about the extent to which the respondent’s response to a friend stalking someone would express positive or negative attitudes toward stalking behavior: “How would you react to any friends who were engaging in stalking behaviors?” (1 = very positive to 4 = very negative). Definitions (victimization) indicating the extent to which the respondent was sympathetic toward victims of stalking was measured by a single item: “How would you react to any friends who were victims of stalking?” (1 = very sympathetic to 4 = very unsympathetic). Neutralizing definitions were conceptualized as beliefs that favored or otherwise tolerated the behavior. These definitions were operationally defined and measured by a single item that assessed the extent to which the respondent held permissive or excusing attitudes about stalking: “Consider any potentially positive and negative factors, if you were to stalk someone, how likely would it be that stalking would be worth the risk overall?” (1 = very likely and 4 = very unlikely). The perceived reinforcement balance with regard to being a victim of stalking (labeled “differential reinforcement balance (victimization)” was measured by: “Considering any potentially positive and negative factors, if you were to be stalked by someone, how likely would it be that stalking would be rewarding overall?” (1 = very likely and 4 = very unlikely).

Two items measured differential association with four-point Likert response options (both anchored by 1 = none and 4 = most or all) and included: “As far as you know, do any of your friends engage in stalking behaviors?” (labeled as “differential peer association (perpetration)” and “As far as you know, are any of your friends victims of stalking?” (labeled as “differential peer association (victimization)”)

Collinearity diagnostics indicated that items measuring social learning theory components for both victimization and perpetration performed adequately.

Demographic variables

Demographic variables of interest included sex (0 = female, 1 = male), race (0 = White, 1 = non-White), Hispanic ethnicity (0 = non-Hispanic, 1 = Hispanic), sexual orientation (0 = heterosexual, 1 = other), and age (continuous).

Results

Univariate analysis indicates that the sample (N = 2,766) is predominately female (N = 1,618; 58.5%), White (N = 2,100; 76.5%), non-Hispanic (N = 2,332; 87.4%), and heterosexual (N = 2,633; 95.5%). The mean age for respondents was 22.8 years. Stalking victimization was reported at a much higher rate (25.9%) in the sample than was stalking perpetration (5.79%). Additionally, the majority of the sample reported mean scores for most social learning items in a consistent direction, including differential reinforcement (3.75, where 4 = very negative reactions from friends), differential reinforcement balance (perpetration) (3.78, where 4 = very unlikely that stalking would be worth the risks), differential reinforcement (victimization) (1.58, where 1 = friends reacting very sympathetic to stalking victimization), and differential reinforcement balance (victimization) (3.76, where 4 = very unlikely that stalking would be rewarding), differential peer association (perpetration) (1.12, where 1 = no friends who engage in stalking behaviors), differential association/modeling (victimization) (1.36, where 1 = no friends who are victims of stalking), definitions (perpetration) (3.74, where 4 = very negative reactions towards friends who stalk), definitions (victimization) (1.29, where 1 = very sympathetic towards friends who are stalking victims), and definitions (favorable/unfavorable) (3.42, where 4 = strong disagreement with the statement that stalking is okay in some situations). This lack of variation in responses to the items measuring the independent variables and the skewed distribution of the dependent variables (especially perpetrating stalking) produces a very conservative test of the theoretical model. Descriptive statistics are presented in Table 1.

Logistic regression models were estimated to analyze the relationships between social learning theory and stalking given that the dependent variables (stalking perpetration and victimization) were dichotomous (Long, 1997). The first binary logistic regression model estimated relationships between stalking perpetration and several social learning factors while controlling for demographic variables (see Table 2). Sex and Hispanic ethnicity are significantly associated with stalking perpetration, indicating that females and Hispanics were more likely to be stalking perpetrators in the sample. Results also indicate that
there is a positive and significant association between stalking perpetration and differential peer association (perpetration) \((b=-.529, p=.013)\), while there is a negative and statistically significant association between stalking perpetration and definitions (perpetration) \((b=-.819, p<.001)\), which others, stalking perpetrators were significantly more likely to report knowing one or more friends who were stalking perpetrators (differential peer association). Additionally, perpetrators reported that they would react less negatively to any friends who also engaged in stalking behaviors (definitions) and they believed stalking someone was okay in some situations (neutralizing definitions). Overall, the findings suggest that stalking perpetration is a social, peer-related process that involves differential association, modeling, and definitions favorable to stalking.

The second binary logistic regression model estimated relationships between stalking victimization and several social learning factors while controlling for demographic variables (see Table 3). Sex, age, and sexual orientation are significantly associated with stalking victimization, indicating that females, older individuals, and non-heterosexuals were more likely to be stalking victims. Results also indicate that there is a positive and significant association between stalking victimization and differential reinforcement (victimization) and perpetration.8

### Table 1

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<th>Std. Dev.</th>
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<td>4</td>
</tr>
<tr>
<td>Differential reinforcement (victimization)</td>
<td>1880</td>
<td>3.780</td>
<td>.570</td>
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<td>4</td>
</tr>
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<td>Differential peer association (perpetration)</td>
<td>1891</td>
<td>1.122</td>
<td>.375</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Definitions (perpetration)</td>
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<td>3.741</td>
<td>.483</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Definitions (victimization)</td>
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<td>.828</td>
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<tr>
<td>Differential reinforcement (vic)</td>
<td>1877</td>
<td>3.759</td>
<td>.564</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Differential association/ modeling (vic)</td>
<td>1888</td>
<td>1.355</td>
<td>.504</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Definitions (vic)</td>
<td>1887</td>
<td>1.291</td>
<td>.577</td>
<td>1</td>
<td>4</td>
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<tr>
<td>Neutralizing Definitions</td>
<td>1888</td>
<td>3.424</td>
<td>.733</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>2766</td>
<td>41.5%</td>
<td>.493</td>
<td>0</td>
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</tr>
<tr>
<td>Age</td>
<td>2727</td>
<td>22.832</td>
<td>5.999</td>
<td>18</td>
<td>62</td>
</tr>
<tr>
<td>Race (non-White)</td>
<td>2746</td>
<td>23.5%</td>
<td>.424</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Ethnicity (Hispanic)</td>
<td>2609</td>
<td>12.6%</td>
<td>.332</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td>2754</td>
<td>4.5%</td>
<td>.207</td>
<td>0</td>
<td>1</td>
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</table>

### Table 2

<table>
<thead>
<tr>
<th>Relationship between stalking perpetration and social learning factors</th>
<th>b</th>
<th>B</th>
<th>Exp(B)</th>
<th>Robust SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential peer reinforcement (perpetration)</td>
<td>-0.058</td>
<td>-0.017</td>
<td>0.944</td>
<td>0.181</td>
<td>0.749</td>
</tr>
<tr>
<td>Differential reinforcement balance (perpetration)</td>
<td>-0.235</td>
<td>-0.074</td>
<td>0.791</td>
<td>0.146</td>
<td>0.108</td>
</tr>
<tr>
<td>Differential peer association (perpetration)</td>
<td>0.578**</td>
<td>0.120</td>
<td>1.783</td>
<td>0.197</td>
<td>0.003</td>
</tr>
<tr>
<td>Definitions (perpetration)</td>
<td>-0.529*</td>
<td>-0.141</td>
<td>0.589</td>
<td>0.213</td>
<td>0.013</td>
</tr>
<tr>
<td>Neutralizing Definitions</td>
<td>-0.819***</td>
<td>-0.331</td>
<td>0.441</td>
<td>0.132</td>
<td>0.000</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.593**</td>
<td>-0.161</td>
<td>0.552</td>
<td>0.212</td>
<td>0.005</td>
</tr>
<tr>
<td>Age</td>
<td>0.012</td>
<td>0.039</td>
<td>1.012</td>
<td>0.016</td>
<td>0.459</td>
</tr>
<tr>
<td>Race</td>
<td>-0.184</td>
<td>-0.043</td>
<td>0.832</td>
<td>0.226</td>
<td>0.416</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.571*</td>
<td>0.105</td>
<td>1.769</td>
<td>0.244</td>
<td>0.019</td>
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<tr>
<td>Sexual orientation</td>
<td>0.353</td>
<td>0.040</td>
<td>1.423</td>
<td>0.404</td>
<td>0.382</td>
</tr>
<tr>
<td>Constant</td>
<td>2.267**</td>
<td>–</td>
<td>–</td>
<td>0.838</td>
<td>0.007</td>
</tr>
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</table>

Log pseudolikelihood: -408.632; Pseudo R²: 0.152.

### Table 3

<table>
<thead>
<tr>
<th>Relationship between stalking victimization and social learning factors</th>
<th>b</th>
<th>B</th>
<th>Exp(B)</th>
<th>Robust SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential peer reinforcement (victimization)</td>
<td>0.162*</td>
<td>0.074</td>
<td>1.176</td>
<td>0.074</td>
<td>0.028</td>
</tr>
<tr>
<td>Differential reinforcement balance (victimization)</td>
<td>0.197</td>
<td>0.061</td>
<td>1.218</td>
<td>0.114</td>
<td>0.082</td>
</tr>
<tr>
<td>Differential association (victimization)</td>
<td>1.177***</td>
<td>0.328</td>
<td>3.246</td>
<td>0.112</td>
<td>0.000</td>
</tr>
<tr>
<td>Definitions (favorable/unfavorable)</td>
<td>-0.096</td>
<td>-0.031</td>
<td>0.908</td>
<td>0.111</td>
<td>0.384</td>
</tr>
<tr>
<td>Definitions (favorable/unfavorable)</td>
<td>-0.275***</td>
<td>-0.111</td>
<td>0.759</td>
<td>0.081</td>
<td>0.001</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.954***</td>
<td>-0.259</td>
<td>0.385</td>
<td>0.132</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>0.035**</td>
<td>0.084</td>
<td>1.026</td>
<td>0.009</td>
<td>0.004</td>
</tr>
<tr>
<td>Race</td>
<td>-0.138</td>
<td>-0.032</td>
<td>0.871</td>
<td>0.145</td>
<td>0.341</td>
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<tr>
<td>Ethnicity</td>
<td>0.092</td>
<td>0.017</td>
<td>1.097</td>
<td>0.174</td>
<td>0.505</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td>0.649*</td>
<td>0.074</td>
<td>1.914</td>
<td>0.265</td>
<td>0.014</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.717***</td>
<td>–</td>
<td>–</td>
<td>0.562</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Log pseudolikelihood: -979.307; Pseudo R²: 0.095.

\( ***=p<.001; **=p<.01; *=p<.05. \)

\((b=.162, p<.028)\) and differential association/modeling (victimization) \((b=1.177, p<.000)\), while there is a negative and statistically significant association between stalking victimization and definitions (favorable/unfavorable) \((b=-0.275, p<.01)\). Thus, stalking victims are significantly more likely to report knowing one or more friends who are stalking victims (differential association/modeling). Additionally, victims report believing that their friends would react to their victimization with less sympathy (reinforcement) and they believed stalking someone was acceptable in some situations (definitions favorable/unfavorable). Collectively, these results support the notion that stalking victimization is also, as predicted by the model, a social, peer-related process that involves differential association, modeling, reinforcement, and definitions favorable to stalking.8

### Conclusion

This study provided the first test of an explanatory model of stalking victimization and perpetration behavior within the framework of social learning theory (Akers, 1973; Bandura, 1977; Sutherland, 1939). In addition to suggesting several new avenues for stalking researchers to test formalized sociological explanations for the evolution of this phenomenon, it is one of very few studies to date that has examined similarities in factors influencing both victimization and perpetration of the same crime. Our results show that several social learning factors, including definitions, differential association/modeling, and reinforcement, are empirically associated with both stalking outcomes in this sample, while holding various demographic factors constant.

Regarding stalking perpetration, our results suggest that there may be responses, attitudes, and behaviors that are learned, modified, or reinforced primarily through interaction with peers. In particular, the relationships between stalking perpetration, differential peer association and definitions indicates that perpetrators believe that stalking is sometimes justifiable. Furthermore, perpetrators anticipate reacting positively to friends who were engaged in stalking. These findings make sense when considering that stalking perpetrators are likely to rationalize or neutralize their own deviant behaviors, and are likely to feel reified by condoning the stalking activities of others. Also, these attitudes persist despite perpetrators’ apparent belief that many of their friends are victims of stalking. The interpretation of this association is more difficult due to time order issues; it is unclear, for example, whether perpetrators identify their “friends” as victims of stalking because they target people known to them, or whether they may be encouraged to stalk as a result of associations with peers who have been victimized.

Regarding stalking victimization, our results are similar to stalking perpetration and suggest that there may be responses, attitudes, and
behaviors that are learned, modified, or reinforced primarily through interaction with peers. In general, this supports a conception of victimization as a social phenomenon, in which victims actively assess and are influenced by observed behaviors as well as anticipated reactions from peers and others. In particular, it appears that victims sometimes adopt a positive attitude toward stalking as indicated by their definitions (favorable/unfavorable), despite anticipated unsympathetic reactions from friends. It is possible that victims' interpretation of the stalking experience may mirror reactions to IPV, in which the cycle of violence persists because the offender is emotionally manipulative and periodically appears contrite. Victims may also be influenced by early childhood experiences in which they observed their parents in various IPV scenarios; this experiential effect could, in turn, shape early definitions regarding normative expectations within intimate relationships. Victims apparently believe that many of their friends are involved in stalking, both as victims and as perpetrators. This provides a clear articulation between differential association, modeling, and stalking, although it is unclear from these results whether the reported associations preceded or followed victimization. This ambiguity suggests that one possible byproduct of stalking victimization is the expansion of the victim's social support network to include other victims. Another possibility is that associations with other victims increase the individual's risk profile due to exposure to stalking perpetrators. The inference from the reciprocal and feedback effects proposed in social learning theory (Akers, 1998) is that both are involved but at different times in the behavioral sequence. Differential association with other victims produces risk exposure and behavioral modeling, which then could lead to the victim seeking out additional association with other victims for social support, which later could produce more victimization through exposure and modeling.

The findings also indicated that females were significantly more likely to be both stalking victims and perpetrators. While prior research overwhelmingly finds that women are more likely than men to be stalking victims (McCreedy & Dennis, 1996; Tjaden & Thoennes, 1998), the consensus on gender and stalking perpetration is mixed. For example, some work suggests that men were more likely than women to be stalking perpetrators (Bjerregaard, 2000), while other scholars find no gender differences (Dye & Davis, 2003), and still others find that women are more likely than men to report engaging in stalking perpetration (Patton et al., 2010; Nobles et al., 2009). The finding that women reported significantly more involvement with stalking perpetration suggests several possible explanations. One possible explanation may be that female perpetrators are targeting victims who are not in college and, therefore, not represented in a college-based sample. Another explanation for the finding that women are more likely to report perpetrating stalking may be a function of male respondents' hesitation to self-report perpetrating such socially undesirable behaviors (similar to sexual assault). In other words, women may be more willing to admit perpetrating stalking whereas men may perceive a more serious stigma when admitting to stalking perpetration. Finally, although a substantial amount of stalking occurs in intimate relationships, stalking also occurs in other relationships (e.g., between acquaintances, family members, coworkers). Given that the overwhelming majority of the sample reported being heterosexual (over 95%), it is unlikely that the sample is comprised of female perpetrators targeting female victims within the context of romantic relationships. The nature of the relationships may reflect a variety of social dynamics. Ultimately, an exhaustive discussion of these different situations is beyond the scope of this study, although future research may be able to further examine the effects of gender on stalking victimization and perpetration.

While the findings suggest some previously untested relationships, it is important to consider several issues that warrant caution when considering the generalizability of the findings and the level of support for the social learning explanation. For example, the sample was comprised of college students who were mostly female (58.5%), White (76.5%), non-Hispanic (87.4%), and young (mean age 22.8). The ability to generalize these findings to other populations may be hampered by the demographics of the sample; however, it is important to note that the demographics of the sample closely match those of the university population from which it was drawn. Generalizing these findings to explain stalking among the general population may be premature without further research, especially since relatively little is known regarding the similarities and differences among college students and other populations with regard to stalking. Some research supports the notion that college-age populations may be disproportionately more likely to feature stalking victims and perpetrators (see Nobles et al., 2009). While college student samples are often successfully used to test a variety of criminological theories (Payne & Chappell, 2008), as well as social learning theory in particular (Sellers et al., 2005), future research should examine the effects of social learning theory on stalking within other populations. A second limitation involves the issue of time order and sequence in associating social learning factors with stalking outcomes, which unfortunately cannot be fully resolved with the available data. Given the support for social learning theory found in this cross-sectional research on stalking perpetration and victimization among college students, future research should test social learning models measuring both offending and victimization with other types of behavior and among other populations, as well as collecting longitudinal data over the life course.

The current study was also necessarily limited in its inclusion of social learning theory variables. Future research that builds upon this work would benefit from incorporating additional measures of definitions, differential reinforcement, and differential association/modeling. More specifically, future research may wish to use alternative wording from "sympathetic" for measuring definitions and reinforcement. While this term was specifically selected to measure respondents' personal affinity with stalking victimization, we acknowledge that alternate measures may also capture this concept. Given that this is the first empirical test of social learning theory and stalking, these measures may serve as a starting point for this line of research. It should also be noted that other theoretical factors may influence or predict stalking (e.g., low self-control). For example, the experience of victimization may lead an individual to seek out peers with similar experiences. Such association may result from the victim joining a support group, or may develop when peers learn of the trauma and consequently seek out the victim to offer comfort and support. Finally, stalking was measured using a self-report method, which may have resulted in over-reporting or underreporting. For example, respondents may have underreported their involvement with perpetrating stalking given that offenders were required to acknowledge that their behavior was frightening or threatening, intrusive, and unwanted. Alternatively, respondents may have over-reported their exposure to stalking victimization if they incorrectly interpreted customary romantic social cues as stalking. This may be especially true in light of traditional romantic pursuit behavior such that men are socialized to pursue women and women are socialized to resist their advances before conceding (Sinclair & Frieze, 2000). Consistent with other self-report studies on stalking perpetration and victimization, these limitations may also affect the current study. However, it should be noted that respondents in the current study were not provided with any incentives to report socially desirable responses given that the surveys were anonymous. Furthermore, prior research indicates that self-reports of personal information (i.e., delinquency) are "acceptably valid and reliable" (Thornberry & Krohn, 2000, p. 3).

The results here, especially if confirmed by future research, suggest clear policy implications. Like IPV, stalking appears to be a learned phenomenon that can be explained by reference to
conducted with a college sample rather than a clinical or forensic sample, and because anticipated rates of serious delusional disorders among this population would be low.

References


Family Relations; 40, 558–564.


